The Builder.

No. CCCVI.

SATURDAY, DECEMBER 16, 1848.

THE opinion that modern feelings, purposes, and wants, are to be made subservient, in the erection of modern buildings, to adherence to an ancient model,—that we should not express our own aspirations, but mould or affect feelings and views to suit ancient utterances,—that we should copy instead of think,—that instead of endeavouring to produce the best building for our purpose, with the best materials at command, we should make the best possible imitation of some preceding work, produced, though it may have been, under entirely different circumstances,—is, we are happy to say, becoming loosened, and, there is little doubt, will gradually be given up. Mr. Fergusson's new work, his "Historical Inquiry into the true principles of Beauty in Art, more especially with reference to Architecture,"* will do much to hasten this; and, by so doing, to restore architecture to its proper position as a fine art amongst us. A general notion of the tendency of this book has been already given in our pages: it wars with prejudices; answers the question we have so often put—"Are architects only to copy?" with a smile of wondering contempt for the deep absurdity of such an inquiry; pooh poohs symbolism; disbelieves both classical and mediæval perfection; condemns the miserable mis-education of the upper classes; and maintains that, as a consequence of this, there is not that he is aware of "one single individual in the upper ranks of society who really knows what art is, or is seriously anxious for its advancement!" It is a bold book, a very bold book, but withal is written in a humble spirit, and so earnestly that the reader can scarce do other than attend and respect, however much he may dissent or be startled. Seeing our superior standard of morality as compared with that of the Greeks; that our religion is nobler and purer; the extent and solidity of our phonetic knowledge, and other higher and purer sources of inspiration than former ages had any suspicion of, it pains the author—the reader can see it pains him—to find them cast aside, unused for the noble purposes they are so well fitted to promote, and their place supplied by mockeries and absurdities which degrade the name of art, and lead men to believe that it is only a hollow bauble, or a pander to our lower sensual propensities. The true object of art is to teach, to elevate, to win man to goodness, to bring him nearer to divinity,—and not simply to provide amusement for barren minds.

To rescue our arts from their present state (our author takes even a worse view of them than we do), is the writer's aim, and the principal points to which he wishes to direct attention are these:—

"The first is to restore to art its progressive vitality, or, in other words, to give up all imitation of past styles (?), and to start at once with the determination to surpass all that has hitherto been done, and to progress towards a degree of perfection that has not hitherto been reached.

The second is to enlist a higher order of minds in their practice, or at least a higher class in society than has hitherto condescended to interfere with them.

The third is to fit them with some higher aim than merely to please the *dilettante* or the connoisseur; for they must teach and elevate, or themselves suffer degradation." This, however, is taking our readers too suddenly into the middle of the book; we should first give them the author's general intentions, and for these we must turn back to the preface.

The work when completed will have three parts. Part I., which alone forms the large and handsome volume now published, consists of an introduction (involving the whole gist), an Essay on Egyptian art; on Western Asiatic art; on Grecian art; on Etruscan art; and finally, on Roman art; and is illustrated by five plates and ninety-nine woodcuts.

Part II. is intended to contain Essays on Eastern Asiatic art, Mahomedan art, Byzantine art, and Gothic art, up to the Reformation. The third part is to consist, first of "a history of the *monkey* styles of modern Europe, from the time when men first began to copy, instead of thinking, 'till the present time, when they have ceased to think, and can only copy—including all the variations of that strange art, from Seville and Sicily, to Stockholm and St. Petersburgh, together with a critique on the modern schools of art; and lastly, practical suggestions for their improvement."

At the "monkey" styles, although their connected history is left for the last part, the writer constantly glances throughout the present volume. Thus, in speaking of the amount of true history given us by the temples of Egypt or Greece, or our Gothic cathedrals, he says,—

"The buildings and works of art of a people are produced by themselves to tell their own tale, and neither are nor can be falsified by time or the errors of copyists, but stand as left by those that made them, with the undying impress of their aspirations or their shortcomings stamped by themselves in characters of adamant. We may not even now be aware of their importance in this light, because our system differs so totally from theirs, and few can get so thoroughly out of the prejudices of the present age, as to be able to look with different eyes on the past. If, for instance, a philosophical historian were to go into one of our modern towns, and attempt to apply the same rules of art to them, he would in one corner find an edifice that would convince him of our direct and unadulterated descent from the Greeks; a little further on he would find that at least a large class exhibited as pure a descent from ancient Rome; a little further on he would find a large building in course of construction that shewed no trace of these races or styles, but proved us to be true Britons, only that we had remained perfectly stationary since the fourteenth century; and this again would be corrected by finding according to another building we had not progressed since the twelfth century: in another street he would discover that we were Egyptians, Chinese, Turks, or Heaven knows what. No rule of true art will apply to ours. Yet there is history built into the walls of our edifices, as well as into those of antiquity; but it is the history of a nation that neglected all the true forms of the beautiful, and were earnest only in the pursuit of the most literal utilitarian utterances, and who were in consequence content to imitate, like monkeys, without understanding what they were doing, or why they did it, what men, using their intellect as such, had elaborated, with half our means, out of the rudest materials."

If artists once felt the degradation inherent on their present servility of copying, and were emancipated from this thraldom, he has little fear of the arts attracting a higher class of intellect than has hitherto been applied to their cultivation, and then that earnest search after the beautiful by men of a high class of intellect, could not long be carried on without the discovery being made of the direction in which it is to be sought after, and where it certainly would be found by those who seek it in truth. What is wanted is *poetry* in the mind of the artist,—poetry with which to invest the merely utilitarian, using the latter word in the confined and vulgar sense of the day, which blindly sees not the usefulness of beauty.

From those who insist on the depressing influence of the "reformation" on art, Mr. Fergusson differs wholly. "I have the strongest faith," he says," "in the common sense of the Anglo-Saxon race, and in their power to excel in art, as they have done in everything else which they have tried in earnest. And I have a still sterner and stronger belief in the superiority of honest Protestant Christianity, as compared either with Pagan classicality, or mediæval Romanticism, and cannot for one instant doubt the triumph of the former when it puts forth its strength."

He thinks that if the present race of architects were only freed from the trammels of a false system, they could easily do more than their forefathers ever did: they surpass them in knowledge, education, and refinement, "but they are now groping about blindfold, and attemping impossibilities, of course only to fail. To me," he says, "they seem like men fishing for stars, whose reflection they see in the stagnant waters of a former world." How they "got into so wrong a path, or can hug so absurd a mania," would be unaccountable, the writer thinks, "did we not know how all-powerful such an extended organization as that of the English universities and the schools under their charge and influence is, and must be, for the mis-education of the upper and most influential classes of the nation. It has been so effectual, that it has not only served to extinguish almost every race of native and progressive fine arts, and to endow us with a revival of a fossil and exotic one, totally at variance with our wants and purposes, but it has completely blinded us to what the true processes of art are, and the modes in which they should be cultivated; and till we know at least what the tools and processes are with which we are to work, it is indeed vain to hope that we can effect anything worthy of us."

Our author, in his anxiety to destroy the precedent-rule, and to shew the miserable state to which it has brought our art, goes further than can be justified, and overlooks much that is gradually going on amongst us. "To give up all imitation of past styles," for example, as he urges, would be to throw away from us the result of accumulated efforts, and to go back to the primitive hut-builders. The history of architecture is that of a continuous progress, the first step helping to the second, the second to the third. The altar built by Moses with the twelve stones about it, needed little elaboration to result in the temples of the Egyptians. The works of the latter people were

* Part the First. Published by Longman, Brown, Green, and Longman, Paternoster-row. 1849.

the foundation on which the Greeks erected their magnificent superstructure, and from the Greeks the Romans took their lesson. At Byzantium, Roman architecture, "with a difference," was practised, and the growth of the wonderful cathedrals of the middle ages out of Byzantine germs may be examined in every stage of progress.

Again, without in any way denying the baneful influence of a bad system and want of proper education on architecture, or ceasing to regret the want of proper progress, something is nevertheless being done, and an architecture, such as it may be, is being produced among us that, like the path up the mountain side, which to those upon it spreads hither and thither, and is scarcely to be traced, will be seen clear and well defined when viewed from a distance. Our labourers' model cottages, railroad stations, viaducts, lunatic asylums, prisons, workhouses, baths, residences, banks, are for the most part genuine expressions of the wants and views of the day,—the result of progressive accumulations of experience. The principle of real beauty, it is true, is but slightly developed in these, and thus they faithfully tell the feeling of the age, but here nevertheless is a distinctive frame-work which art may clothe, and consecrate to our century. Anxiously do we look to have this done, and to find in our artists a higher aim than that of copying as correctly as possible: "Freedom and hope are the first true principles of greatness in art, as in every thing else; and servility, and despair of doing better than has been done before, must cramp the noblest genius and hide the highest aim."

Our readers will find both pleasure and profit in the perusal of Mr. Fergusson's powerful and interesting work.

THE GERMAN SCHOOL OF PAINTING.

The reproduction of the German theory on the subject of the study of antiquity in your columns is a topic so important to the future welfare of art, that nothing less than a full investigation of its claims to public support ought to be satisfactory to those who adopt it. It is, therefore, without apology that I venture to address you again, not so much to contradict as to qualify the statements upon which that theory is based.

Madame de Stael, in her "Germany," very truly states that the German dominion is "the air." No German can eat, or drink, or sleep, without a theory. That enthusiastic people has ever been remarkable for brilliancy of imagination and depth of intellect, but not for soundness of judgment. It was, therefore, natural at a time when the revival of art at Dusseldorff and Munich took place, that it should be accompanied by peculiar notions, and a new theory of the beautiful. The theory was shortly, as stated by your correspondent, "An Artist," much to the following effect, viz., that the character which forms the strength of nations, as well as of individuals, is a gradual and natural development of the powers of man, which ought to be suffered to work out its own results, free from the control of systems and the bondage of schools. It was attempted to establish this theory from the history of art in Italy, and the sublime genius of the early poets and painters was favourably contrasted with that of later schools for this purpose. The cause of a decline and fall so grievous and lamentable was urged to be the prevalence of classical taste, and the introduction of Greek statues. It appears to me, I own, at first sight, that the cause alleged is quite insufficient to produce so vast a result. One German author, indeed, refines so far as to state that art obtained its greatest perfection in what is usually termed the middle manner of Raffaelle. His first style is (it is stated) a cold copy of his master, Perugino. His second shews that natural development which great powers of mind acquire by constant exercise. His third style exhibits seeds of decay and corruption. The very arabesques of the Vatican, taken as they are, in great measure, from the antique, it is contended show a predisposition to study the "outward form"—the "external decoration"—rather than the spiritual meaning or inward signification, conveyed by the work of art to the spectator's mind. There is a vast gulf, we see, between the picture of "The Transfiguration" and "The Entombment of Christ" in the Borghese Gallery. A greater knowledge of effect and colour have in the former case been purchased by the sacrifice of higher qualities—dignity and pathos.* Granting the facts to be as stated, the unfairness of attributing the result to any one cause is manifest. A correct knowledge of the life of Raffaelle, and of the social state of Italy at the time, are the best means of enabling us to ascertain the causes of the decay of art; but further, *the facts* are disputed. In many points the latter works of Raffaelle, and particularly "The Transfiguration," are his greatest performances; and if not in all points the same, it only seems to prove what I have before advanced, that as each age in man has its appropriate employments and amusements, so each age in the life of nations has its peculiar phases of character, and its peculiar developments of art. But what have been, let me ask, the practical results of this theory? To no mind did these views present themselves with greater force than to the genius of a man like Overbeck. Glowing with an ardent affection for the saints and martyrs of Fra Angelico, he was conscious (according to his theory) that it was only by throwing himself as far as lay in his power into the whole system pursued by the early painters that he could paint as they paint. His first step, therefore, was to change his religion, and renounce the idea of painting any but religious pictures. He felt the necessity of a definite course of training, and (if I may so express it) of breathing a certain atmosphere. He betook himself to Rome, where he lives like a recluse: and strangers, who annually go as pilgrims to the city of the seven hills, bear testimony to the sincerity of his piety and the simplicity of his life.

And yet the result is certainly unsatisfactory; least of all is it a style easy and natural. Setting out, as I have before remarked, with a supercilious contempt of classical antiquity, it has ended in a slavish adherence and imitation of Christian antiquity. It is a style which may be very attractive to enthusiastic men of peculiar religious views, but it does not and cannot attract the full sympathies of the age in which we live.

The general weakness of the argument which I have, I hope, fairly stated, must be apparent to most intelligent minds. It is as if a man, admiring the innocence of childhood and the vigour of youth, were to attempt to give the airs and graces of a boy to a prudent sexagenarian! or it is as if a tutor and guardian, seeing the peculiar attractiveness of an infant, were to say to his child, "You shall never learn Latin or Greek, because it will spoil the freshness of your taste. You at least shall remain a specimen of the olden time; and blissful ignorance shall be the best substitute for classical attainments." Alas, Sir, the vices and follies and foibles of the age in which we live are many, but such as they are we must try to throw ourselves into it, and educate our children accordingly. We should take advantage of every light which experience or nature can give; avoiding all exclusive systems, and distrustful of ourselves on the one hand lest with the acquirement of knowledge we lose vigour and originality of thought, and on the other, lest, by too great a confidence in our own attainments, we despise the results of experience. Had your correspondent, "An Artist," advocated the exclusive study of antiquity to the disparagement of nature, I should have argued at least as keenly in favour of nature as I now do in favour of the old masters. Over-education, it must be admitted, is a fault in the present day; but over-education is seldom felt except in the case of a naturally weak mind. Because the study of antiquity leads to mistakes—because, for instance (as your correspondent remarks), the study of Wilkie or Rembrandt leads to an inability to appreciate the works of Leonardo or Raffaelle,—is that, let me ask, a good reason for abandoning the study of antiquity altogether? Truly not so: but the moral to be drawn from such failure is rather this—that it is desirable each should only study so far as the natural strength of his capacity will enable him to go. The really great man may, indeed, take "all knowledge for his province," as did Bacon. To the ordinary run of mankind, it will be sufficient to attempt a certain branch of the arts, and in that to attain proficiency. Those who are wedded to any exclusive system can appeal to experience neither with pleasure nor profit, but those who, to minds already enlightened, add a keen love of nature and truth, it will be found that even faulty works of art may present much that is valuable in the way of instruction. It is, indeed, the characteristic of true critical skill to discover beauties as well as to find faults.

Again, the application of the German theory to literature, appears to be, at the least, as defective as its application to art. Nor is this to be wondered at. Broad principles which commend or reject the study of experience, are universally true or false, and admit of no real modification. It may, indeed, be true that some of the early poets of Italy possess a purity of thought which is lost by the taint which civilization and increasing numbers bring with them. It may be true that Tasso was a poet vastly inferior to Dante. This, however, I contend may be traced to the difference of character in the two men, rather than to any sinister influence on the mind of the former from classical associations. Dante himself, by the prominence which he gives to the character of Virgil, in his immortal song, unquestionably advocates the study of classic authors, and when "An Artist" finds fault with the selection of Pagan imagery to illustrate a Christian story, he should remember that in doing so he blames not merely this age or that—this or that system of ecclesiastical government, but the whole practice of the middle ages. "Our ancestors," remarks Mrs. Jameson, in her excellent preface to her late work, were not particular in drawing that strong line of demarcation between the classical, Jewish, and Christian periods of history that we do. They only saw Christendom everywhere, and regarded the past only in relation to Christianity." Hence we find Solon, Apollonius, Plutarch, Plato, and Sophocles introduced into sacred subjects (one of which Mrs. J. instances at length), holding scrolls on which are inscribed passages from their works, interpreted (mystically) into allusions to the coming of Christ, and pictures of the nativity are to be found where the Sibyls are dancing hand in hand round the cradle of the Saviour. The seeming profanity of such allusions is certainly explained away when we understand it as interpreted to include the comprehension of the whole universe, in a truly Catholic sense, within the pale of Christianity. And so, too, our own Milton—

"Thus Jove on Juno smil'd."—

Speaking of Adam and Eve, and of Milton, Mr. Editor, I would remark that his is a case, where experience aided genius. He not only imitated, but surpassed the poets of Italy, and his devotion to classical studies is well attested by the unrivalled excellence of his Latin versification. Pope, Dryden, Addison, were all accomplished scholars, of which their works bear ample testimony, and he is a bold man who can venture to say that they would have been, had they thrown experience overboard, and relied on the study of human nature. The two celebrated statues, Tam 'o Shanter and Souter Johnny, were specimens of what nature can teach a man when he studies her without light or knowledge. Instead of following the golden rule of taking the best things from the best men, the uneducated artist, trusting to impulse rather than to reason, attempts a matter of fact imitation of what is nearest to his hand. Those who come to nature without principles to guide them in looking at her, become servile imitators or vile copyists, but the man who comes to nature

* Two good specimens of the later and middle manner of Raffaelle, which may be familiar to your English readers, are the "Madonna delle Candilabre," purchased by Mr. Monro out of the Lucca Gallery, a late work of the master, and the St. Catherine in the National Gallery.

with experience and reading to assist him, knows what to put in and what to exclude, and his progress is likely to be certain and secure, because he always has a test whereby to try his works. Does he make a clever study from nature? Let him test its truthfulness by comparing it with the great works of the men of former times. Does he wish to avoid the mannerism which the study of the old masters is apt, if exclusively pursued, to engender? Let him test their truthfulness by going to nature. Thus he has always a countercheck, which those who rely, as I have often already stated, on *one* great principle, are sure to seek in vain.

I conclude, Sir, with the last words of Mr. Hope, in his celebrated Essay on Architecture, as what is there said regarding architecture, appears to me still more applicable to the arts of sculpture and painting, and indeed very much expresses my own views.

"No one yet seems to have conceived the smallest wish or idea of only borrowing of every former style of architecture, whatever it might present of useful or ornamental, of scientific or tasteful; of adding thereto whatever other new dispositions or forms might afford conveniences or elegancies not yet possessed; of making the new discoveries, the new conquests, of natural productions unknown to former ages, the models of new imitations more beautiful and more varied; and thus of composing an architecture, which, born in our country, grown on our soil, and in harmony with our climate, institutions, and habits, at once elegant, appropriate, and original, should truly deserve the appellation of 'our own.'"

An Amateur.

INTERIOR DECORATION.

SIMPSON'S DIVAN IN THE STRAND.

We have lately had to record several praiseworthy attempts in interior decoration, a department of architecture to which we have heretofore devoted much attention. Considerable talent in invention, along with great beauty of effect, have been displayed, even in instances where we could not altogether approve of a departure from what we have held to be universal canons. The natural sensibility to the captivating influence of colours in harmonic combination, is no longer forgotten in the arrangement of public places of amusement; much beauty of form is exhibited on flat surface or in relief, and in all respects we are reminded of the presence of the artist rather than of the house-painter and paper-hanger. The improvement which has taken place, within a comparatively recent period, we view with considerable satisfaction after our own endeavours towards it.

The large room at Simpson's Divan, opposite Exeter Hall, in the Strand, without thinking it entitled to any extravagant praise, is one of the instances we may refer to.—The room has windows at one side and end, and a bar at the end of the opposite side near the entrance. It is entered through a passage, tastefully, though somewhat gaudily, decorated, from the street, and by glazed doors from the passage, and from Ries's Cigar Divan.

The ceiling of the room is intersected by five beams, three being grouped together, across the middle. The beams are, it is to be regretted, somewhat unsatisfactory in appearance, as some of them are supported over voids, which however we remark without knowing what may be their structural office. There is a fire-place at each end of the room: tables are arranged along one side, and the other is divided into boxes. A sideboard occupies the centre, and there is a round table at each end. Long pier-glasses and console-tables are placed between the windows. The general tone of colour is light, and of a warm buff hue, relieved by red colour, and by ornaments in various tints. The soffits of the beams are painted with guilloche ornaments, and the coves by which the beams are united to the ceiling have the honeysuckle ornament, red colour—without attempt to give the effect of relief—being employed with good effect. The spaces of the ceiling are painted with ornaments, of rather poor character in regard to design and drawing, and relieved by shading. This ornament is arranged in geometrical compartments, similar in design in each division of the ceiling, which gives some of them rather a cramped appearance, from the widths of each division not being the same. There is also a greater mixture of style in the ornament than would have been desirable: but this is a common error. The dark colour introduced in some of the circular ornaments seems to us to be too dark, giving rather a patchy appearance. The walls are divided by pilasters, and are panelled in light green colour, with a pattern of lighter tint, the whole painted in imitation of morocco leather. In the centres of these panels are bas-reliefs, much resembling in design and material those in the Lyceum Theatre. These subjects are in ornamental gilt frames, oblong and circular, and are relieved by pink grounds. The panels are defined by gilt mouldings. The pilaster panels are painted with a pattern in brick red colour, to which some of our remarks upon the ceiling would apply. The furniture is of novel character,—the round tables being particularly good. Each of them supports a large gilt candelabrum of five lights, with figures grouped round the stem, and having female figures, coloured white, branching out at the top, for the support of the lights. The general lighting is by sconces of two-lights, each supported by a figure similar to those of the candelabra,—ranged along the walls. The chimney-pieces are black, with imitation of inlaid ornament. Beneath the sconces are seen serpents twisting from the wall: these, the use of which we should have long been in doubt about, the visiters have turned into hat-pegs. We may snatch this opportunity of again urging that in every design the purpose should be apparent, and that the design should be subservient to that purpose; but the true principle, in several extensively-circulated designs, seems to be wholly unconsidered. In the present case, the thing wanted was, simply and perspicuously, a hat-peg, not something which might be turned to that office, as indeed could, excellently well, the loaf of bread with a hole cut in it, or the bottle, which Swift recommends to servants as efficient substitutes for candlesticks. The judgment expects reason and purpose to take part in design, and is disgusted with what has been called by some one, the practical joking of so-called design.

To return to our subject—the general effect of the room is good, and though we have noticed a few matters of detail that unfortunately are errors which it is difficult to avoid, with the limited time allowed in works of this nature, the design is creditable to the architect, Mr. Friend, and to the decorator, Mr. Blackburn, of Grosvenor-street, Eaton-square.*

In remarking upon the general progress observable in interior decoration, we might notice the constant introduction of new materials and forms, extending the resources of the architect in buildings of ordinary character to an extent never thought of by our predecessors, although the mechanical reproduction of these forms is, in some degree, a loss to art, from its being rendered less incumbent upon the architect to enter into the consideration of all matters of detail.

In paper-hangings, indeed, there has been so great an improvement, by the introduction of patterns printed on separate pieces, so as to be applicable in combination for panels, borders, and for plafonds of ceilings, that the architect is now not altogether dependent, as in too many other departments of his art, upon materials such as are the best that can be had from the manufacturer, and which must, therefore, in all cases where small outlay is available, be used with all their imperfections,—but he can vary, adapt, and recombine, so as to exhibit something like design in the embellishment of an apartment. At the same time, with reference to paper-hangings, whilst, of those manufactures applicable to the purposes of architecture, there is no branch which so well exemplifies the alteration which has taken place in the vocation of the architect, rendering him the skilful adapter of designs ready made, rather than the originator of every detail—and, consequently, whilst giving him increased means of embellishment, rendering it an important object for him to attend to the progress of schools of design, and other means of educating the class of designers whose works he may be compelled to use; so there is no class of production in which correct principles of design are so important, or still so far from being perfectly appreciated. The immense number of trashy designs which are exhibited, is in some degree wonderful for variety, whilst hundreds may be examined without meeting with one displaying beauty of design, or good drawing and appreciation of the forms chosen, or skilful combination of colours. The want of early education in the delineation of beautiful forms is constantly observable in the great majority of the cheap paper-hangings,—although, as it seems to us, it would not be difficult to produce designs, even with single blocks, which should be strikingly original. In former volumes we have entered at length into the consideration of the principles upon which paper-hangings, and other interior decorations, should be designed.

* We should not omit to notice the design of the street lamps in front of the building. They are improvements upon the tasteless forms which are seen elsewhere, reminding us how wasteful we are of opportunities of contributing to the pleasure which is derived from looking at beautiful works.

THE GAS MOVEMENT.

IN TOWN AND COUNTRY.

Peal after peal of not very distant thunder has of late been vibrating solemnly in the ears of the City gas companies, and reverberating as loudly throughout the provinces. Not only have the City gas consumers buckled on their armour for a coming fight, but those authorities to whose aid and support in the struggle, as advised by us, they have appealed, are now responding with alacrity to their call, and vieing with each other for the leadership. Meeting after meeting has been held by the City Sewers Commission on the subject, and in the corporation there are strenuous advocates of the diffusion of cheap and good gas. Need we say that the arguments brought forward on all hands, both officially and unofficially, are either our own or corollaries on the facts we have industriously collected,—that in short the thunders of Guildhall and Bishopsgate are but the resonance of our own lightnings? We rejoice to think that it is so, yet a shade of that positive of which pleasure is said to be but the negative might have been spared us by something like *an acknowledgment* that we *did* sow the seeds which are yielding so hopeful a crop of argumentative determinations. As it is, we must console ourselves, we suppose, with the reflection that the vanity of human ambition renders it oftimes expedient, in its display, that *the nourishing roots* of its flourishing branches—waving and glorying in all the shiny lights and airs of noonday—be quietly buried, as far as possible, underground.*

We need not, even had we space, go over all those pregnant facts and arguments brought forward at recent meetings, official and constituent, since our readers are already well acquainted with their main features. We may merely record the result, which is, that on the one hand the authorities have determined at once to apply for power from Parliament either to purchase the pipes, &c., of the companies, or to erect works and lay pipes of their own with the proceeds of a gas rate, for the purpose of reducing the price to 3s. 6d. or 4s., at the utmost, per 1,000 cubic feet,—evidence being abundantly adduced to prove that even a less sum was sufficient; and that, on the other hand, the formation of a "Great Central Gas Consumers' Company" has been announced, authorising the city gas consumers to purchase works, &c. The city gas consumers appear to be suspicious of the permanence of the good intentions of the authorities, but if mistaken, they will doubtless come to a mutual good understanding, which otherwise, indeed, they may be said to have already.†

* In the midst of the progress made in town and country during the last week or two, however, we feel in duty bound to record at least one exception on the part of both press and people, in a report, by the *Chelmsford Chronicle*, of one of a repeated series of meetings at Chelmsford, where the gas consumers are fully embued with the spirit of the movement, and at which meeting Mr. Wilder read at length, as the paper reports at length, from The Builder, a phalanx of evidence adduced to prove, from the Companies' own returns, that reductions in price had ever increased their own profits, and, incidentally, that the local price of coals had very little to do with the local price of gas.

† Since these decisions have been come to, also, other districts of the metropolis are on the move. The inhabitants of St. Andrew's, Holborn, have already determined to "support the movement, heart and soul;" and, indeed, it is clear that no leader will be voted into authority, at the ensuing elections, who will not pledge himself, not only to do so, but also to exert himself with equal energy in the attainment of an equally cheap and abundant supply of water—a cognate object to which we have also repeatedly called attention—although we have preferred a perse-

In course of the recent proceedings it was stated, on the part of the Sewers Commissioners, that they were prepared to get gas made for them at 2s. 6d. a thousand cubic feet; and that even at present the Eastern Counties Railway station, &c., are supplied at 3s. 6d. Large capitals expended on works are no excuse now for high prices, as was remarked at a numerous meeting in Bishopsgate-street, for the public have long since reimbursed all such expenditure, more especially in so compact a district as the city. As for the bugbear about the expense of coal in London, the gas consumers took the same opportunity of shewing the gas companies that they were no longer to be scared or deceived by that fallacy; but what would they have said had they known what we now for the first time tell them, that it is seriously maintained at Newcastle-upon-Tyne that even that town is not so favourably situated *as to coal* in the formation and cost of gas and coke as the metropolis is? At a late meeting of the town council of Newcastle, in a discussion on the all-interesting and fermenting questions of the price and quality of gas, one of the members remarked that "Coal, it was said, was cheaper in Newcastle than elsewhere; but this was not an advantage to the Company (at Newcastle). They paid 6s. per ton for coal and sold their coke for 3s. 4d. In London 16s. was paid for coal, and 17s. realized by the coke." Moreover, when we consider that each ton of coals produces about 12 cwt. of coke, besides 8,000 to 9,000 feet of gas (at 6s. per 1,000 in the city), what are we to think of the assertion on the part of the gas companies that the question as to the price of gas is one entirely dependent on the expense of coal?*

In fine we may state, that the movement pervades the whole country,—that, as a gas consuming correspondent of a provincial contemporary remarks, "a general and most just stir is making at this time in reference both to the charges made by the gas companies and the quality of the gas supplied."

With the electric light (which, according to its friends, is to cost something less than nothing) just seen above the horizon, the gas companies should now at all events mind their look out. Better late than never; although there is such a time as "too late."

SHIP TIMBER.—NEW FOREST.

From the great public interest awakened by the late plunder of oaks detected in this royal domain, and the solemn averments on behalf of and by the Commissioners of Crown Lands, people are actually led to suppose that timber sufficient for the building of a squadron might be cut there for naval purposes, and that the extent of at least 20,000 acres, out of 40,000, is covered with monarch oaks,—in fact, that they could "scarcely see the wood for trees."

Considering the utter uselessness of these wastes for all other productive purposes—the vast staff of rangers, verderers, and officials, connected with this and the other royal forests—the host of commissioners, secretaries, and employés, at the offices of Woods, Whitehall, and at the various localities of Free Warren, most certainly the people of England have a right to expect that so much land abstracted from food-producing tillage should at least furnish its contingent to the wooden-walls of the island. But how stands the case? Why, in fact, that you may ride for miles without seeing a tree! Here and there a few stunted pollards relieve the eye ranging over barrenness, and at fitful distances a few groves may be found on diligent search on the more fertile portions, and near the enclosures of private owners. These latter are, of course, more convenient for freebooters; and here it was that so much havoc has been made. Take, however, the expenses of public officers and servants from the produce of the timber sales effected, and we shall find but a very sorry return for national purposes.

It appears, however, that instead of being cut and sent to the docks at Portsmouth, all timber felled in the New Forest is sold without discrimination of use, and that the *contracts for the Navy* are given to *merchants by tender*, who procure their timber where they please,—and that these tenders are given, not to the lowest bidder, but to the favourite at head quarters; not one stick coming necessarily from the forest: thus the commissioners stick at nothing. Then as to the venison (for there are deer on the range), we find that 720 bucks are distributed annually amongst officers of state and bishops, and of course the Royal table is supplied.

This, then, is the whole use of the New Forest: the same may be said of the Forest of Dean, of Windsor, Epping, and sundry others.

Seeing the vast extent of royal forests (from 100,000 to 200,000 acres) and the incalculable extent of common, waste, and unappropriated land in Great Britain, viewing the wants of the people, the dearth of employment, the insufficiency of food, feeling the necessities of the times, when 300,000 souls are annually emigrating to the antipodes for a field and scope for their industry, one is struck with wonder that no better use is made of these waste lands, or that there should be any such thing in a country which is constrained to import so large a quantity of their daily bread. As to the absurd pretence of producing timber for the navy, that is too ridiculous to hold any longer—no one believes it.

Contractors now provide all timber for such uses; and the trade of our merchants can always supply the best material at the cheapest price,—much cheaper than Government can grow it; and whenever the emergency should arise, there is plenty of oak in England to be purchased in the market.

As timber and woods of greater durability are abundant in our colonies, would it not be a wise measure to export redundant humanity, and to bring back freights of timber from Australia and New Zealand? By sending out saw-mills, the choicest products of those colossal forests might be *cut into scantling* adapted to the dock-yard occasions, and be sent in return ships: by such means useful colonists might be conveyed to improve our colonies abroad, and to lighten the consumption at home; an immense tract of cultivation might be added to the insufficient breadth of crop now grown at home; a considerable saving would be effected in boards, commissioners, and fruitless expenses; and at the same time a large revenue would accrue to the state from the leases or grants at feu rents of something like 500,000 acres, which are now only used as the beat of the poacher, the walk of the warrener, of the sporting licentiates of the Commissioners of Woods, or of royalty, and the lawless province of the oak-dropper: as yet, however, no *timber-napping* has been detected in the other forests.

Suppose all the forests to be enclosed, then 200,000 acres sold at an average of 5*l.* an acre would produce a million sterling; or, let at 5s. an acre, having the first five years at a peppercorn rent, it would produce 250,000*l.* a-year!! And this land, besides employing 400,000 persons, would be immediately brought into cultivation, whilst at the same time the growing timber, if marked and *reserved under covenant* for the Crown, might still be *saved for the navy* as upon farms of private estate, thus bettering the condition of the labourer, enlarging the field of production, increasing the home supply of grain, and yielding a large profit on possessions which, as they exist, are an absurdity, a loss, and a crime!

On the other hand, the timber-carrying ships would convey away to a happy clime and scenes of plenty, a population now in misery, an incumbrance to the land: these would become the consumers of our manufactures; and if freed from the obstructions to emigration imposed by Government in New Zealand (the obstacles being the price charged for land there,—3*l.* per acre), they would become an independent colony.

The return freight, say of 300 tons in a vessel of 600 tons burden, would, as the timber is extremely valuable, perhaps pay the Government; but the deficit, if any, might be made up from the proceeds of the wastes at home.

With respect to the advantages of Australian timber, and in particular of mahogany, in the construction of ships, it is a well attested fact, that the *dry rot* will not affect it, and that in cases where deal and other woods were wasted in decay and enveloped in the destroying fungus, pieces of mahogany incorporated in the same texture or framework, had wholly escaped the infection and preserved their soundness.

Mr. Twigg, a surveyor and timber-merchant of experience, previous to 1840, in a report by a resident committee at Perth, in Western Australia (see Ogle's history of that colony), states to the Government, "I have seen quantities of mahogany and also of terrart timber thrown in waste near my saw-pits, exposed to the sun and variations of five years without injury, and hardly touched by white ants, although they swarm here: these insects attack every wood except mahogany and this terrart gum-tree, both of which grow to colossal sizes, the former of various qualities, hard and soft, and well adapted for planking; and the latter for keels, kelsons, beams, and any purpose where great length, strength, and durability are required.

"In examining waste pieces, deal was first eaten by the ants, next, woods imported from England or the colonies; but mahogany they will never touch till time has destroyed its properties."

Thus we see the superiority of that species for naval uses, and at the same time we but too well know that the soundest heart oak cannot resist the dry rot; but American is the worst of all timber. At the same time all accounts from Australia testify that that vast country abounds in giant trees, both of the mahogany and gum species, to which the terrart or white gum belongs.

With the aid of saw mills these timbers might be converted into plank or scantling, according to model, so as to form stowage for return emigrant ships; or by the establishment of docks at suitable stations, the hulls might be built in the colony, if sails, cordage, &c. were sent out for their equipment: the abundance of copper at Port Philip would at the same time afford bolts and fastenings, which require no very high degree of art in the manufacture.

"The flooded or blue gum also grows to an enormous size, is of extreme hardness and extraordinary tenacity when properly seasoned; it wears to a fine polish and will not split, and is therefore admirably adopted for sheaves of the largest blocks, and for machine work."

Ships which have an immunity from the rot and the worm would be almost imperishable. Sir Robert Seppings might say to such "*sit murus aheneus esto.*"

As emigration and colonization are the absorbing themes of the day, these hints at colonization of the deserts (you may call them deserts in the oasis) at home, are dropped by

Quondam.

FIRE-PROOF TIMBER COTTAGES FOR LABOURERS.

Owing to the unpropitious weather, the attendance of the visiters of the Smithfield Cattle Show invited to witness the experiments of the Timber Preserving Company was somewhat scanty. The experiments seemed successful so far as they went. Three successive charges of dry wood shavings, weighing each about 8 lbs., were ignited in the interior of one of the prepared cottages, without any great effect; one charge, on the other hand, rapidly caught and destroyed the rafters of the cottage which was unprepared.

The company had nearly completed the erection of a labourer's cottage of two stories, which is now to be inspected at the wharf. They suggest that the expense of the present brick cottage is such, that besides the moral and physical evils arising, as at Hilton, from the disinclination of landlords to incur the outlay required, the tenant is hardly able to bear the weekly encroachment on his wages for rent. A fire-proof and decay-proof cottage of paynized timber, it is asserted, would cost about 40 per cent. less than the brick tenement, and insure a profit, instead of loss, to the owner, and a great reduction of the burthen of rent to the occupier. A correspondent suggests the expediency of the company entering into contracts to build cottages of all sizes on and near the suburban lines of railway, and

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vering concentration of efforts on one point, at one time, till that should be carried out to a triumphant issue. But if both ends be simultaneously accomplished by the onward impetus of the one movement already got up, so much the better: both are objects equally called for and equally desirable.

* The annual consumption of gas in London, it is estimated, is upwards of 3,000,000,000 cubic feet, while 250,000 chaldrons of coals are consumed by the various gas works.

dispose of these in freehold to industrious tenants, on the improved principle of the building societies, viz., in consideration of payment, with a fair profit, by fourteen annual instalments of 10 per cent. on the value; leaving it to the tenant to protect himself by a life insurance in case of his premature decease in the interval.

He says,—"The question is one of very deep interest, and is intimately connected with the prospects of the fire insurance companies, to whom it is as desirable to reduce the risks of fire as it is to the public: just as an improvement in the ratio of mortality, by justifying a reduction in the amount of annual premiums, has greatly extended the benefits and the uses of life assurance. If the number of conflagrations in London, for example, could be reduced from 900 to 600 per annum, it is evident that a premium of one shilling per cent. would be equally profitable with the present ordinary charge of one shilling and sixpence. A reduction in the enormously disproportionate amount of Government duty might at the same time be legitimately demanded by the companies and the whole body of fire insurers, and the practice of fire insurance would then become almost universal, tending at once to the additional security of the public, and to a large increase of business and profit to the fire companies. It is not pretended that the general adoption of the process will put an end to the ravages of fire, but its use would certainly render fires less frequent and less destructive."

The effect of *time* on timber so prepared has to be considered; and for our own parts we are anything but anxious to see a recurrence to timber houses.

A NOTE FROM SLOUGH.

Under the powers of the Disease Prevention Act, the Sloughites lately appointed, through a meeting of the ratepayers, held at the Slough Mechanics' Institute, a committee to perambulate the town, and make their report to an adjourned meeting. They did so, and at their request the guardians issued notice for the removal of all nuisance, which was instantly obeyed. The adjourned meeting determined upon petitioning the Board of Health, but to delay it till the actual approach of disease rendered it necessary. As the houses, are, in general, scattered, the cost of sewers would be enormous.

The Slough Gas and Coke Company have commenced laying down the gas mains (3-inch bore), and expect to have the first burner fixed by Christmas eve. They have also issued their circular, requesting the inhabitants to inform them of the number of burners they may require; at the same time stating the price of gas would be 10s. per thousand cubic feet, and that a discount would be allowed upon all consumers of 40,000 feet. When the shares were taken, and the Company incorporated, 7s. was stated by the Directors to be their price, and enough too: it is, therefore, looked upon as a breach of faith. The shareholders seem to say they will take none, and the ratepayers are determined to oppose the lighting the parish, unless at an enormous reduction; nay, they even threaten to build another gas work, or have it from Windsor, which they can at 7s. 6d. Gas companies, beware! or the "electric light" may spoil your dividends!!

The new branch line to Windsor from Slough is progressing satisfactorily. The abolition of return tickets by the Great Western Railway Company must or will injure them: more persons travelling now, when possible, by the third class. At the 45 minutes after nine train from Slough to Paddington on Saturday morning last, there were only *one* second-class passenger and *three* first. I have usually seen from 40 to 50, and even more.

Old Upton Church, for which you made an appeal some time ago, continues in the same deplorable state; they have, indeed, mended the roof and coloured the exterior, but the interior is daily becoming worse, and at this time is even in a dangerous condition. Now the ivy is taken away from the tower, it looks like a sheep shorn of its wool.

At the time those galleries in the new abomination were built, provoking so much discussion, and even a leading article in the *Times*, the worthy Bishop of Oxford recommended the old church to be repaired, and rendered fit for Divine service, and the new one left as it was. The advice, however, was not palatable. I really think, Mr. Editor, if you were to open a subscription, sufficient might be collected to preserve so great a national antiquity. The *authorities* would then, for very shame, lend their aid. The Bishop of Oxford would, I have no doubt, head your list.

THE CYCLORAMA AT THE COLOSSEUM.

Under this title Mr. W. Bradwell has just now constructed and fitted up with great elegance, a large building attached to the Colosseum, in Albany-street, which can scarcely fail to attract much attention. It is proposed to answer the double purpose of exhibiting colossal moving pictures and serving as a music-hall,—much needed in that neighbourhood. The idea sought to be carried out in the arrangement of the building is that of the vestibule of a noble mansion fitted up for the performance of a masque or play, such as at one time formed the pastime of our court, and which, by a curious coincidence, her Majesty is at this moment about to revive.

The *salle* in front of the picture is divided into two parts by a deep entablature spanning the whole width. That portion of it nearest the picture, and which forms the proscenium, has on each side of it, at a short distance from the circumscribing walls, a range of six large Roman Ionic columns (2 ft. 9 in. diameter), carrying the entablature,—which, again spans the width of the building at a short distance from the picture. A flight of steps terminates the floor at this end, with four *couchant* lions on pedestals at intervals, over which the audience see the cyclorama. The walls on either side present respectively copies of Raffaelle's "School of Athens," and "Constantine delivering up his authority to the Pope." On the ceiling are figures and groups (Minerva, with Prudence, directing the arts), and the frieze of the entablature shews, in relief, "The Triumph of Alexander," the figures being white, and the background red. In the second division of the building, appropriated to the audience, a tier of boxes, of tasteful design, the front of which forms a waved line, is suspended against the back wall. A bacchanalian procession of figures in relief, in imitation of or-molu (somewhat too large), occupies the face of the boxes, which is, further, formed into panels by figures holding cornucopiæ in very bold relief. The ceiling here has a painting, "Jupiter demanding a Solemn Council of the Gods." We can only further add, that the effect of the whole is admirable, and reflects the highest credit on Mr. Bradwell for inventive and artistic skill.

The subject of the cyclorama is Lisbon and the destruction of the city by earthquake.

BENEVOLENT FUND OF THE INSTITUTE OF BRITISH ARCHITECTS.

On the 11th inst. a special general meeting of the institute was held, to receive and consider the report of a committee appointed in May last, relative to the establishment of a Benevolent Fund.

The report was read. It urged the propriety of establishing such a fund, to alleviate the wants of our less fortunate brethren, and went on to say,—"That the most convenient mode of distributing the fund, and that most conducive to the object in view, will be by placing it, for that purpose, in the hands of the treasurer of the Artists' General Benevolent Institution, *provided* that it be kept as a separate fund, to be called the Fund of the Institute of British Architects, and that the council of the institute maintain such a control over the distribution as will secure the full benefit of the fund to the members of the architectural profession." A long discussion arose, from the feeling that the entire charge of the fund should be vested in the institute, a feeling in which we fully participate. On a vote being taken, however, an amendment to that effect was defeated. The committee was then re-appointed, to take the necessary steps to establish the fund, and to make arrangements with the managers of the Artists' General Benevolent Institution to take charge of the fund; and so terminated the proceedings.

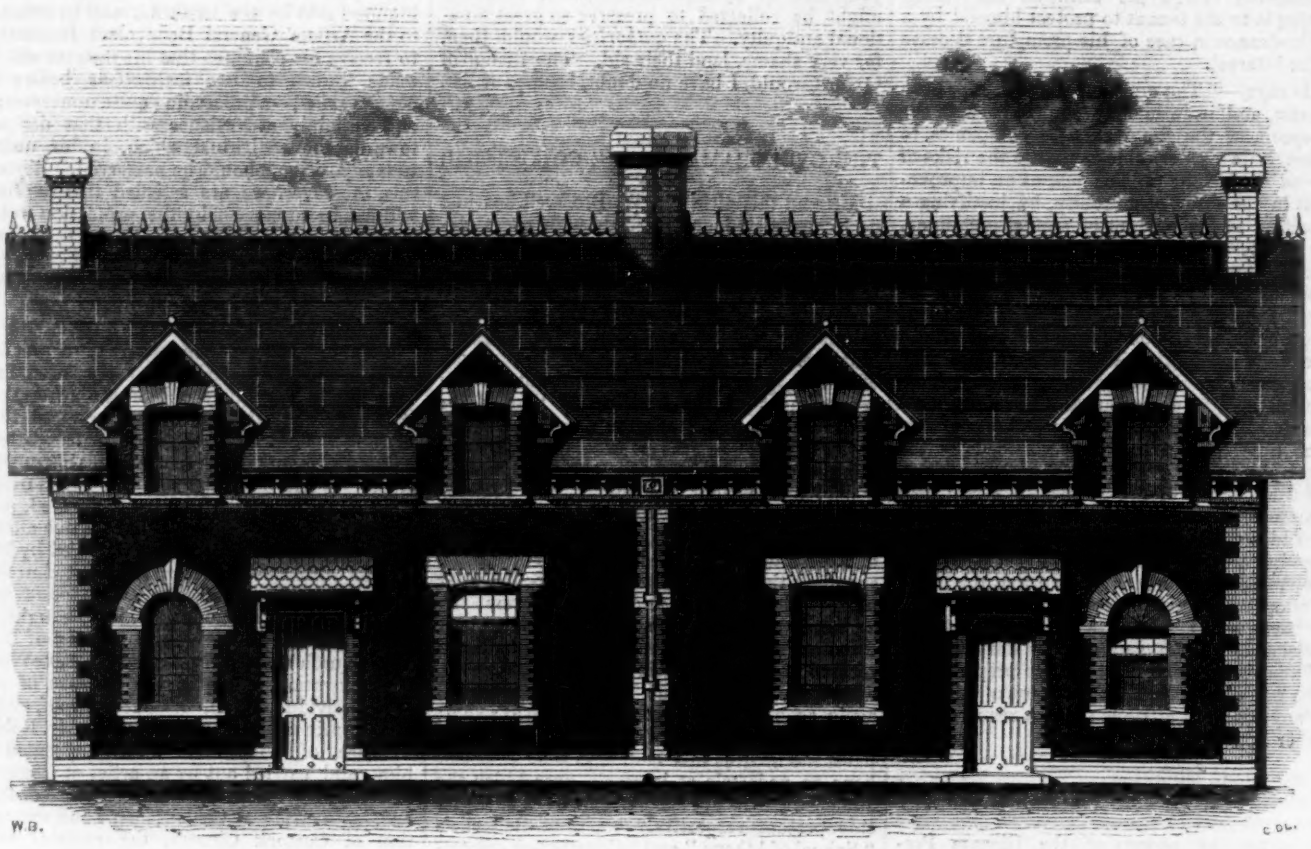
Why this good work should not be wholly carried out by the institute, we cannot see. A recipient of the fund will now have his case inquired into by the institute, and be referred to the Artists' General Benevolent Institution to receive his claim, so that his distress will be made known to *two institutions* before he *obtains relief*,—a proceeding quite unnecessary, and certainly at variance with that delicacy towards the individual which, in his unfortunate position, should be preserved. Beyond this, moreover, we are satisfied that the fund will not be supported by the profession to the extent it would be if wholly in their own hands.

NOTES IN THE PROVINCES.

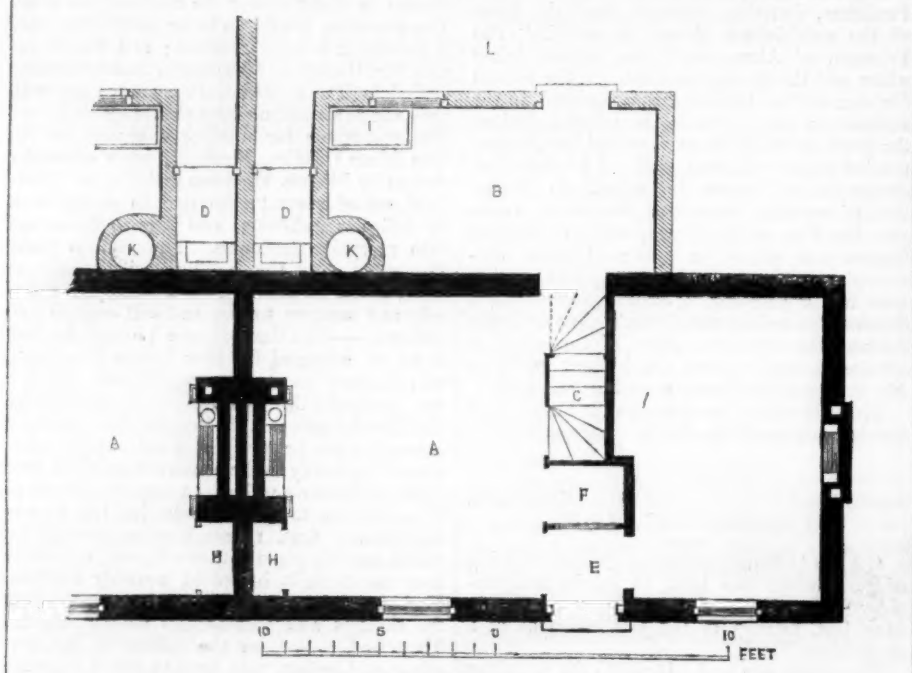
The old lectern, consisting of a massive brass eagle and stand, as represented in a view nearly a century old of the Interior of Salisbury Cathedral, has been restored to a place in the centre of the main aisle, where it has been mounted on an oak platform with steps. It had been cast aside in St. Martin's Church, to which it had been removed, probably in the time of Wyatt's extensive alterations. The expense has been defrayed by Mr. George Sutton.——The seven district churches now in progress of erection at Plymouth and Devonport, will be completed, it is thought, in less than five years.——The chancel of Banwell Church has undergone considerable repair and renovation, chiefly at the expense of private individuals. An ornamental roof, richly gilded, principally from designs by Mr. Robert Wallace, of Winscombe Court, presented by him, and carried out by an artist of Banwell, Mr. R. H. Trickey, has replaced the old plain one.——During the enlargement and restoration of Costock Church, the remains of a reredos have been discovered while taking plaster from the chancel walls. The principal picture is directly over the centre of the altar. The discovery is said to be an instructive one. A fac-simile is to be retained; and the architect, Mr. George G. Place, states that architects, ecclesiologists, or societies may have copies if they will do something for the building fund.——The committee for building a church in the Pits Moor District, Sheffield, have selected a design by Messrs. Flockton and Co., of Sheffield, out of several submitted in competition by different architects, and it is to be carried into execution forthwith. The style is Early Decorated, and the building will consist of nave, north and south aisles, transepts, chancel, and western tower, and will contain 840 sittings.——The Stafford new Lunatic Asylum is to be enlarged for four hundred paupers, and another erected on a different site for one hundred other inmates.——A writer in the *Hull Packet* says that the "corporation surveyor seems to have bestowed a great deal of misplaced ingenuity in the construction of the roof of the new corn-market. A cursory glance at it is sufficient to show that he has had a two-fold object; first, to see how much wood he could possibly place in the roof; and, secondly, how much light he could possibly exclude. Unfortunately, it is light and not wood that the farmers and corn-factors chiefly require. They had rather *see* the difference between wheat and barley, than have to detect it by the sense of touch. They have prayed the Property Committee to give them more light. That the surveyor's son, who, it is said, built the roof, should happen to be a joiner and not a glazier, is simply a curious coincidence."

Partial Opening of Portland Prison.—On 24th ult. sixty-four of the convict-tenants took possession of the building, which now consists of a principal portion, divided into four corridors, with 640 cells in four galleried stories, an infirmary, baths, gas-works, engine-house, bake-house, cells for punishment, &c. &c. Inner and outer walls, 18 feet high, enclose an area of many acres. Next year 1,300 tenants will be accommodated. The surveyor-general of prisons and planner of Pentonville prison, Colonel Jebb, C.B., designed this establishment, and his assistant, Mr. James Ottey, is carrying it into execution. The breakwater, Mr. Rendel, the Government engineer, superintends.

DESIGN FOR LABOURERS' COTTAGES.



ELEVATION.



PLAN.

DESCRIPTION OF A DESIGN FOR A PAIR OF LABOURERS' COTTAGES.*

Economy being the chief study in this design, it was proposed to erect it of flint, with brick dressings, for greater stability. Were the bricks (red and white) judiciously selected, and a little care bestowed on this arrangement, it was thought that a trifling interest would be attached to the cottages without materially increasing the expense, such as the indiscriminate use of either material would not afford them. Nothing beyond this has been attempted in the elevation above. White brick and black flint should but rarely be placed in juxtaposition; the contrast is too violent. In the above design, therefore, the red brick has been preferred, as it gives a cheerfulness to the appearance, and harmonizes well with English scenery. The white brick is used to subdue the otherwise too "fiery" appearance of the red, and is, as it were, introduced by it to the dark material employed in the general construction of the cottages.

The roof should be covered with slate.

Reference to Plan.—A kitchen or living-room, B scullery, C bed-room (thought desirable in case of sickness, &c.), D water-closet, E porch, F larder, G staircase, H cupboard, I sink, K copper, L yard or garden. The kitchen and scullery should have a lime ash floor. This is a kind of concrete, with the surface polished, and is very frequently met with in Devonshire. It is laid in a thickness of, perhaps, 6 inches, on a layer of sand over a well-rammed and level foundation. They are found to be exceedingly durable (provided the lime be properly sifted and slaked), and very cheap. Having a polished surface, they neither decoy the dirt so zealously as boards—they are not so loth to part with it—nor do they take damp in exchange, and administer cold to the lower extremities. Covering the entire surface of the room without joints, there are no upward jets of cold air, and the uneven ragged picture of stone paving is not exhibited. A range, with boiler and oven, is placed in the kitchen, and stoves in all the bed-rooms. Fire-bricks are recommended, as giving greater heat, for the lining of oven and back of range.

All the wood-work is to be sized and varnished.

The sashes to all the windows are cast-iron. They open by a portion turning on a pivot (see elevation). Further particulars of these sashes are given, together with detailed drawings, in "Loudon's Encyclopædia," where it is stated that it gained its author the first prize given by one of the north of England scientific bodies for "the best and most economical design for cottage window sashes." The cost is but 5s. for a window 4 feet wide.

The larder,—an essential to a labourer's home,—should, it was considered, be as far as possible from the scullery, or where any cleaning or washing is done. It has a window of perforated zinc, and would form, if well stocked, far from a disagreeable sight on entering the porch.

There are two bed-rooms over A and C respectively, on the first-floor. The scullery is not built over.

Under the staircase, as near as possible to either fireplace, is a closet for coals. The water-closet is contiguous to the main building, and, at the same time, in such a position as to insure the occupants of the cottage from annoyance. It was further thought desirable to place it where it would readily receive a portion of the rain-water from the roof, and where it could, without requiring a great length of pipe, receive the

* This design was submitted in competition for the premium of 10*l.*, recently offered by a correspondent of the *Art-Journal*, for the best design for a labourers' cottage, under certain conditions.

waste from sink in scullery, which, besides promoting cleanliness, increases the value of the manure. Earthenware tubes of 4 or 5 inches diameter, glazed on the inside, are deemed quite effectual for the drainage, which should be conducted to a liquid manure tank, fixed away from the building. The pan recommended is that usually seen engraved in the advertisement sheets of THE BUILDER.

A pump should be fixed where it would be mutually convenient to the occupants of both cottages. All the water from the roof should, nevertheless, be saved.

The ventilation is managed by means of a warm air chamber, supplied from without, through air bricks, at the back of kitchen range. The air should enter the various chambers through perforated zinc plates, at a moderate temperature, from the sides of chimney breasts, near the floor, and quit them through similar apertures on the other sides, near the ceiling. The air flues are carried up without communication to the top.

W. BOUTCHER.

THE CHURCH OF S. ISAAC AT S. PETERSBURG,

ERECTED BY THE CHEVALIER DE MONTFERRAND.*

BEFORE continuing the notice of the building, perhaps I may be permitted to call attention to the enormous application of the electrotype or galvano-plastic process in the sculpture of this cathedral by the architect. After having made very important experiments, he was authorised to adopt this mode in the execution of the metallic sculptures and carvings for the following reasons:—

1. The identical reproduction of the sculpture without chiseling.

2. The lightness of the pieces, which enabled the architect to introduce sculptures of higher relief than any hitherto known, and to fix the pieces suspended from the vaultings, without fear of accident, or of their being detached.

3. The great saving of expense between these and castings in bronze.

The gilding also was effected by the same process, and presented equal advantages.

The seven doors of the cathedral will be of bronze and electrotype, the frame work being of the former, and the sculptural parts of the latter. Three of these doors are 30 feet high, and 14 feet wide, the four others 17 feet 8 inches wide. They contain fifty-one bas reliefs, sixty-three statues, and eighty-four alto-relievo busts, of religious subjects and characters.

There is so remarkable a departure in the construction of the dome from the systems hitherto adopted, that I shall be perhaps pardoned in trespassing further on your attention by describing, with the aid of the annexed diagram, the whole assemblage of this important feature.

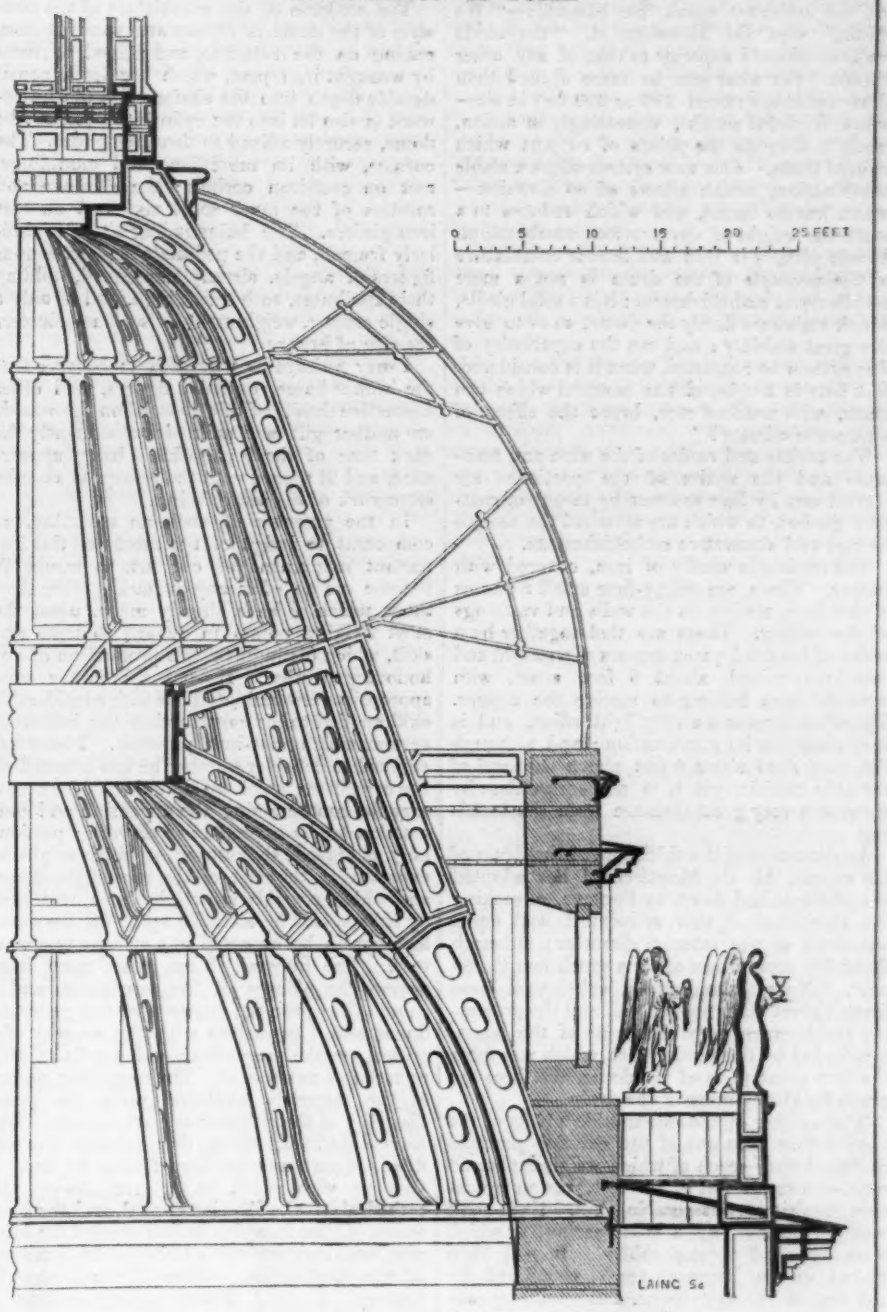
In alluding to the cupolas previously erected, the chevalier pays a just tribute to the genius of our illustrious Wren, and recognises S. Paul's "as the only existing dome presenting an irreproachable solidity." He, therefore, adopted the principle of Sir Christopher, carrying it out in a combination of wrought and cast-iron, and hollow pots.

The walls of the drum of the dome are carried up in solid construction of brick, with tiers of stone bond, and are above 8 feet thick. On the level of the top of the cornice of the circular colonnade, which girds the drum, there is a series of twenty-four cast-iron ribs, the feet of which rest on a cast-iron plate 7 feet wide, which runs quite round the circumference. The lowest division of each rib rises to a height of about 23 feet, in its narrowest part is 3 feet 4 inches wide, in its broadest 5 feet, with upper and lower ribs, and the central part lightened by large apertures. At their head all the ribs are attached to a horizontal plate or curb, 6 feet 3 inches wide, which follows the periphery of the dome. At this height the rib is divided into two, the one part about 2 feet 6 inches deep, following the sweep of the inner dome for a height of 20 feet, at its summit bolted to a cast-iron perforated cylinder, 21 feet in diameter, and 7 feet high: this forms the central aperture at the summit of the inner dome. The other part follows the line of an intermediate cone, with a catenary

* See p. 590, *ante*.

CHURCH OF S. ISAAC, AT ST. PETERSBURG.

CONSTRUCTION OF DOME.



outline, and similar to the one in our S. Paul's: it is also 21 feet long, and 2 feet 6 inches deep, and perforated to render it lighter. At this height the heads of the ribs are again secured to another horizontal plate or curb, which forms a complete circle, and is 3 feet wide; and this curb and the ribs are tied to the cylindrical opening of the inner dome, already mentioned, by radiating beams 2 feet 3 inches deep. The conical ribs have then another length of 21 feet, and their heads are again connected by another horizontal plate, from which spring the circular ribs, about 16 feet long, forming a dome to the intermediate cone, and their heads also bolted to a cylinder, 8 feet 6 inches in diameter, and 18 inches high. But the upper portion of the ribs diverge at top, so as to form a base for the octagonal cupolino, which consists of a series of cast-iron story posts, ribs, and bracketings, inclusive of the dome of the cupolino, with its ball and cross at the apex, which last are of brass gilt. The filling in between the ribs consists of pots, the surfaces of which were subsequently rendered with plaster, and painted with sacred subjects. The sphere of the outermost or third dome, consists of a series of wrought-iron T ribs tied to the conical dome by rods. The external face of this outer dome is divided by twenty-four bold ribs, and is covered with bronze, gilt in three thicknesses of leaves of ducat gold.

The three principal gilders of St. Petersburg were charged with the inspection of the execution of this portion of the work, and rejected every leaf that had the slightest spot or blemish.

The whole entablature and flat, and the balustrade over the peristyle of the drum of the cupola, likewise consist of cast and wrought-iron framing, faced with plates of copper, to form the profiles and mouldings. The twenty-four pedestals of this balustrade carry winged angels of bronze, above 9 feet high, each of a single casting.

The quantity of metal employed in the dome is as follows:—

Ducat gold		247 lbs.
Copper	52½ tons.	
Brass	321½ tons.	
Wrought-iron	524½ tons.	
Cast-iron	1068 tons.	
	1966½ tons.	247 lbs.

The foresight of the architect has provided the following precautions against lightning, so much the easier, as the summit of each dome is in metal: at the top of the crosses of the bell towers and of the cupolino of the central dome are rods of platina, terminating in a point: each dome at its springing has isolated iron conductors, which go down to the roofs; and in the direction of the cast-iron rain-water

pipes are continued in the interior of the walls down to wells in the basement, the overflow of which discharges into the town sewers.

In justification of the system here employed let the architect speak for himself:—"We think," says De Montferrand, "the mode we have adopted superior to that of any other cupola. For what can be more absurd than those vaultings raised 250 or 300 feet in air—whose frightful weight, unceasingly in action, tends to disunite the points of support which uphold them. Our new system offers a stable combination, which allows of no disunion—which has no thrust, and which reduces to a tenth the weight of any previous combination. In our plan, the iron and bronze entablature of the peristyle of the drum is not a mere architectural embellishment: it is a solid girdle, which embraces firmly the dome, so as to give it a great stability; and can the superiority of this system be contested, when it is considered, that here is employed the material which can alone, with prudent care, brave the effects of a rigorous climate?"

The arches and vaults of the nave and transepts and the soffits of the porticoes are carried out in like manner by means of cast-iron girders, to which are attached the marble facings and decorative embellishments.

The roofing is wholly of iron, covered with copper. There are thirty-four small columns of cast-iron, resting on the walls and vaultings of the ceiling. These are tied together by a series of inverted queen trusses of wrought and cast iron mixed, about 6 feet apart, with wrought iron lathing to receive the copper. The whole presents a very light effect, and is very simple in its combination; and although the roof rises about 9 feet above the level of the attic outside, yet it is not seen unless by those at a very great distance from the building.

In determining the thickness of the drum of the cupola, M. de Montferrand has adopted the principle laid down by Fontana, of making the thickness of this cylindrical wall equal one-tenth of the internal diameter; although Rondelet and others allow a much less thickness. Notwithstanding, a substantial base for this great thickness of wall and the projecting architectural embellishments of the dome, is afforded by the pendentives, which rise from the four great piers of the dome, and form the circle for the cylinder of the drum.

The raising of the monolithic shafts of the twenty-four columns of the exterior peristyle of the dome,—each of which weighed near 66 tons,—to the height of 150 feet, was an operation requiring considerable skill. Each shaft was surrounded by a stout casing, to which were attached strong cables. It was then placed on an immense truck, calculated for the size of the vast block, and drawn by capstans upon an easy incline to a platform, which was on a level with the tops of the columns of the interior order, 42 feet high. Upon this platform was a moveable incline, 92 feet high, but with a very sharp rise, and up this the monolith was again drawn by capstans. At the summit was a large platform, 180 feet square, upon which was a moveable wooden framework, answering the purpose of a crane, with blocks and falls. There were twelve capstans around this framework. The monolith being dragged up the incline, reached the summit, and, by its own weight tilting over, reached the framework; it was then by it raised to a vertical position and gradually lowered on a granite die prepared to receive it, and which was cased with a bronze base.

As soon as one monolith was in its place, the moveable incline and the moveable platform and frame were all wheeled round ready to raise the next column; and so on the operation was repeated until the whole series were securely fixed in their respective places. It only required two hours to raise one of the shafts from the platform on a level with the capitals of the inner order, and to fix it on its base. 300 men performed this operation: the most perfect order and silence were maintained throughout, and the different movements directed by the sound of a bell. A silver rouble was placed on the base of each column in a hole sunk for the purpose.

The first column was raised on the 17th November, 1837, just eleven years ago from this period: nor was the operation commenced without prayers to Almighty God to bless the undertaking with success. In two months the twenty-four columns were completely fixed, and, be it remembered, in the very depth of a Russian winter.

The skeleton of the entablature of the peristyle of the dome is of cast and wrought iron, resting on the columns, and affixed to them by wrought iron pins, which are let a considerable depth into the shafts; and the framework is also let into the cylindrical wall of the dome, securely affixed to three templates. The cornice, with its modillions and mouldings, rest on cast-iron corbels; the caissons and rosettes of the inner soffit also rest on cast iron girders. The balustrading above is similarly framed, and the pedestals support bronze figures of angels, already mentioned, holding their attributes, each 9 feet high, and of only a single casting, weighing 1¼ tons. The balusters are also of bronze.

I may perhaps be permitted to observe that the bronze bases, capitals, figures, and other decorative details of this material on the outside are neither gilt nor painted, consequently the dark tone of these parts has a heavy appearance, and ill accord with their purpose and the stonework of the outer facing.

In the presence of such an assembly, so competent to judge of the merits of this important monument of our art, it would ill become me to offer any remarks, other than those which I have already made, upon the most striking points in regard to taste and skill, which distinguish this production of our honorary member. He has chosen the most appropriate materials, and has with considerable skill applied to his construction the improved system which cast-iron presents. I have not stopped to consider whether he has adopted all the expedients which we should consider necessary for counteracting the expansion and contraction to be expected in ironwork; particularly as regards the movement which might be expected at the feet of the ribs of the dome, and which possibly we might have regulated by rollers, and by allowing space for the development to be expected in a warmer temperature. The interval of ten years must have proved the efficacy of his provisions, and I should ill requite the courtesy of our generous donor were I to analyse with the severity of a critical eye the proportions and details of this remarkable monument. The unsparing nature of the materials employed prove the pious liberality of the emperor and the nation. The careful skill with which the architect has fulfilled his part, and the deep feeling for decorative art with which he has embellished the cathedral of the Russian capital, and the brief space of time in which he has erected the lofty pile, must ever render the Church of S. Isaac one of the most striking edifices of the nineteenth century. THOS. L. DONALDSON.

APPOINTMENT OF SUPERINTENDING INSPECTORS UNDER THE HEALTH ACT.

SIR,—It seems to me desirable the public should know what very clever fellows the Board of Health have appointed, and intend to appoint, as superintending inspectors. I therefore send you the following extracts from their reply to applicants, so that you may hereafter, with your accustomed acumen and impartiality, test performance by promise. It is delightful to find that interest and personal friendship will have no weight, but that the men who understand, and have long worked in the sanitary cause without reward, may look for the advantage of these appointments.

D.

"That the board may be enabled to judge of the positive as well as of the relative ability of the candidates for employment in this service, they will require, in addition to the ordinary testimonials as to general ability and moral trustworthiness, to be furnished with proofs of a special aptitude for originating, expounding, and superintending the execution of the class of works in question. In the Public Health Act you will find set down the various duties of a superintending inspector, and, among others, that of dealing with the owners and occupiers of districts, in the way of exposition, examination, and judicial decision." * * *

"As the means of enabling the board to judge of your application, they would ask you to lay before them your views of the means of remedying the defects. To this end they would wish you to state, in the first place, the general principles which, during an inquiry and inspection of any city or town, would govern your determination of the boundaries which might be most advantageously adopted for the purposes of the Public Health Act, and then to select or suppose some case of defective house and Land drainage, water supply, and cleansing, and shew in detail the way that you would treat it. Take, for example, a small provincial town or large village, or a detached suburban district of five or six hundred houses, or an undrained heavy clay or marshy site, and, it may be, affected with ague or typhus." * * * *

"In the next place, you would require to shew how you would select, gather, store, and distribute water for domestic use, for cleansing, and for the prevention of fires, with the character and cost of the works; and also to state the principles that would guide your procedure in this important department. It will be most to the purpose to choose for this purpose a town with no suitable river water at hand. The qualities requisite in water to be supplied to towns, the materials to be employed in water works, their sizes and proportions, and the amount of supply necessary for a given population, are, you are aware, all essential to be attended to. The paving of streets, of the different classes of main and secondary streets and courts, including the materials, the method of forming the foundation, the form and inclination of the surface, with the cost of work, would also require to be given, in reference to any place you might select or suppose, and also the means you would adopt for cleansing streets and courts, and for disposing of the refuse. The disposal of solid refuse from the habitations would likewise have to be provided for. You will, moreover, be expected to give a very precise and detailed account of your views as to house drainage. One of the chief objects of sanitary works being the immediate removal of all decomposing refuse soil and waste water from around, amidst, or beneath human habitations, it is desirable that you should fix upon a house, for example, one of the fourth class, or of the kind inhabited by the labouring population, and shew by what arrangements and apparatus, and with what materials, forms, sizes, and construction, and at what price you would accomplish this object. The same ought also to be done for blocks of houses. It would be requisite to distinguish between the cases of old houses and the applications that you would propose for new buildings or new districts.

You ought further to shew by what methods you would avoid the retention of solid decomposing refuse in the neighbourhood of habitations, as well as the pollution of river with soil-water, and at what expense you would accomplish these objects."

RAILWAY JOTTINGS.

THE mere depreciation of railway stock about the middle of last month, was estimated by Manchester shareholders, at "upwards of 120,000,000*l.*,—that is, nearly one-sixth of the national debt!"——With regard to such formidable amalgamations of capital as those of the abandoned three Westerns, and the two Easterns, lately proposed, but referring specially to the former, *Herepath* says, "it is more dangerous to the public in other respects than mere cost and inconvenience of transport. The united capital of the three Companies is admitted to be 52,000,000*l.* excluding the shelved branches and extensions; and the length of lines which they possess and have an interest in, excluding again those put on the shelf, are 2,080 miles; and the united territory which they propose to monopolise, taking half of England, the whole of Wales, only one-third of Scotland, and none of Ireland, is nearly 43,000 square miles. With such power as this, backed by the patronage of 52,000,000*l.* of money, turning in a revenue exceeding 5,000,000*l.* per annum, which it probably will, what ministry could stand against it? *It would be like putting the ballast of the state vessel all on one side.*"——In the *Bristol Mirror* lately, there was a piece of wholesome satire in the shape of a letter from a wife, thanking the Great Western Directors for putting a stop to the return ticket system, not on the ground that it prevented her husband's returns to Bristol, but that it prevented at least one half of his flights to London altogether. She says that he used to go twelve times a year, *because* the trip was so cheap and so quick, but now she has to thank the Directors not only for keeping her husband at home, but for buttoning up his pocket, in place of leading him into the temptation of unbuttoning it that they might pocket his cash themselves, as they used to do. The whole *expense* to the Company of carrying a person between Bristol and London, says *Herepath*, is under

1s.—say, in the double journey, 1s. 6d. For going *twelve* double journeys a passenger would pay the full fare of *eight*. The Company, therefore, saves 9s., and loses two full double fares, which the traveller saves, besides collateral expenses! So much for the suspension of the return-ticket system, and the consequent economization and recruitment of the railway funds thereby.* The raising of fares is just as likely to increase their profits as this long-headed scheme appears to be.——Mr. Cox, the superintendent of the Electric Telegraph Company's works at Manchester, suggests that, for the prevention of railway accidents, the guard of every train should be provided with a portable telegraph, which, in case of any accident or emergency, he could attach to any of the wires, and signal any station for assistance. Such a suggestion has been repeatedly and long since made, but is none the worse for wear; indeed, it appears to be so feasible, and so likely to be useful, that it would probably not be easy for the railway direction to justify itself for not having long ago given heed to it. Portable telegraphs would cost something; that is the secret—though surely it should now be well known that accidents are even still more costly than would even the most abundant means of their prevention be.——The French Minister of Public Works has issued orders that for the prevention of accidents by railway, the employment of four-wheeled locomotives for passenger trains be interdicted, that every carriage do rest on six wheels at least, in order that if one of the axles should break, the carriage should still rest on supporters, and continue its course. Locomotives to be placed at the head of the train, and never behind. At least one carriage without passengers always to be placed at the head of each train of five carriages, and two carriages without passengers when the carriages in the train shall exceed five. Carriages with passengers never to be locked.——The Admiralty, at Mr. Ward's suggestion, intend having a system of dockyard railways introduced in place of teams, which cost 6,661*l.* per annum at Deptford, Woolwich, Chatham, Sheerness, Plymouth, Portsmouth, and Pembroke.——A tramway is now laid down on the pier at Southend, for which a small engine is to be provided. This pier, it will be recollected, is a mile and a quarter in length, and cost 42,000*l.*, though sold to the Eastern Counties for 17,000*l.* The Company have also been purchasing 30 acres of building ground adjoining it.——The bridge over the Witham, on the Lincoln line to Great Grimsby and Hull, is somewhat on the principle of the tubular bridge over Menai Straits. The weight of rails and traffic is supported by two girders of iron, which rest upon cross girders, extending from and fastened to two copper tubes, 6 feet in height, 18 inches wide, and stretching from pier to pier, bearing the weight of the whole. ——The tunnel (in solid granite throughout) at Killiney Point, Bray, on the Dublin, Wicklow, Wexford, and Waterford, has been cleared through. The contractor is Mr. Burke.——On the Holyhead line, the Carnarvon tunnels on the contracts between Conway and Bangor are being arched over with brick. ——About 200 men are employed on the Michelton tunnel of the Oxford and Worcester line, and a brickmaking-machine is at work on the spot, turning out 32 bricks a minute.—— Three of the arches near Bridge-street, Homerton, on the East and West India Dock Junction gave way lately and killed two men and severely crushed a third, besides killing a couple of horses and doing other damage. The shores were said to have been too soon struck. The contractor is Mr. Jackson, of Pimlico. ——On the tidal estuary of the Tay, at Broughty-ferry, below Dundee, a floating railway, or rather a railway float, is being made, with rails, and a length, breadth, and buoyancy sufficient to carry a train 500 feet in length across the estuary, by steam power equal to 250 horses. Stationary engines on either side the frith will lower and draw up the trains to the higher level of the line, the Edinburgh and Northern.——An embankment at Dumblane, on the Scottish Central, is said to have been carried away, and coaching for about seven miles rendered necessary.——A portion of an embankment on the Taff Vale line, near Merthyr, is also said to have given way; but the permanent way was soon restored.——The top stone of the Wharfdale viaduct, on the Leeds and Thirsk, has been laid. This viaduct, as we think has been already noted, consists of twenty-one arches, of 60 feet span each.——To obviate the frequent accidents from breaking of wheel-tires, a new wheel without tires, made of cast-iron, has been invented and patented, according to the *Manchester Examiner*, by Mr. R. Heath, of that city. It is cast, of course, in one piece, and "the difficulty to overcome," says our authority, "to make a wheel of cast-iron sufficiently strong, has been that of a nice calculation, so as to make it equal in all its parts, and to secure a mode of casting which ensures the contraction of the metal being equal in all parts. The test applied to try its strength was to hoist the wheel to a height of 14 feet, and then let it fall upon a bed of solid iron. The only effect upon it of this test was an indentation similar to that which wrought iron might be expected to discover. Another test was to let fall upon the boss, or centre portion of the wheel, a tup, or large ball of iron, of 9 cwt. from the same height; and this heavy mass bounded off without producing the least impression upon it. The patent wheel will be the same weight as those now in use, but may be made at a reduction of 40 per cent. in price."

* Even the first week's trial of the trick thus played upon the confiding possessors of return-tickets—and, of course, long ere they could have had time to recal previous more or less permanent arrangements founded on the faith of the return-ticket system, and thus escape altogether out of the clutches darted forth so suddenly to ensnare them,—fully justified the predictions of all common-sense people, not blinded by the unreflecting greed of an overweening self-interest. On the very day on which the return-tickets were abolished, 15 miles of new line were opened, yet the traffic returns of the following week *without* return tickets, and *with* the 15 miles of new line, were just 537*l.* 14s. 10d. *less* than they were the week before *with* return tickets, and *without* the 15 miles of new line!

STATE OF ST. MARGARET'S CHURCH-YARD, WESTMINSTER.

A MORE pestilential nuisance in this mighty metropolis can hardly exist than one immediately under the noses of the makers of our sanitary laws: this is the churchyard of Saint Margaret, Westminster, contiguous to the Houses of Parliament. Having undergone a few years vicinage to this locality, I may venture to affirm, from my own observation, that 300 corpses are about the number annually added to the limited area of this pest-spot. I have often witnessed scenes revolting to human feelings, when the grave-diggers were seeking an eligible space for another interment by forcing a borer, something like a huge gimblet, into the earth. An exclamation of "oh!" has escaped from their brutal lips when the iron rod broke the lid of a coffin, during this operation, and descended suddenly for a foot further in depth without exertion, doubtless piercing through the decaying remnant of some loved departed person, whose resting-place had been purchased there by sorrowing survivors with fees of gold.

And when a space is found where an addition to putrescent matter can be received, bones are turned up in heaps, with fragments of muscle attached, not yet decayed, and skulls intact. The grave-digger's spade has readily smashed these remnants of mortality, that the disgust of passers-by might not be excited. Oftentimes there are three or four of these foul cavernous openings emitting their exhalations to poison the atmosphere: on a summer's day, with the steaming vapour called up still stronger by the heat of the solar rays. As every fresh coffin displaces a portion of this highly-infected earth, it is usually wheeled off and placed in a heap against the railings on the north side of Henry the Seventh's Chapel, where it remains until the sun and rain occasion its dispersion.

I would here propose a question for the scientific inquirers of the day to resolve. Do not the mephitic odours and noxious gases arising from this immense mass of decaying human matter in the churchyard act on the surface of the stonework, which has so much crumbled on the front of the north transept of the abbey—the greater part of the balustrade above the first range of windows having totally disappeared? The disintegration of many other parts is rapidly progressing, and the more recently-renewed work of Henry the Seventh's Chapel is fast dropping off.

When the wind is westerly, the breeze is so sickening that the inhabitants of the apartments above the Rolls' Court, and in the other parts of this building fronting the churchyard, close their windows to shut it out, be the weather ever so fine. The cabmen even feel its baneful influence, and, after nightfall, urge their jaded horses, when they have taken up "a member," to gallop through the *gut*, as this part from the doors of the House of Commons to Bridge-street is named by them, that they may get quickly away from the deleterious atmosphere.

Yet this is the air which our senators respire when they leave the Houses of Parliament, with fatigued lungs after long speeches, abstinence of refreshment, or dreary hours of attendance.

As wise women say, there is no sore without a salve; and not to disturb the mementoes of the dead, the gravestones might form part of an uniform pavement, well cemented, with those added to fill the interstices at the joinings; but at least a couple of feet in depth of the earth should be removed, and a layer of concrete placed thereon to level the ground and prevent its sinking into inequalities of surface.

AN IDLER IN LONDON.

RUINS OF FENAGH ABBEY,

COUNTY LEITRIM, IRELAND.

SIR,—During a sojourn of some two or three months in this neighbourhood, I have had an opportunity of visiting Fenagh Abbey, one of these interesting ruins so numerous in this and the adjoining county.

Fenagh Abbey is situated a few yards off the high road leading from Mohill to the village of Ballinamore. It is perched on a slight eminence, and presents little or nothing to the casual observer beyond the cyclopean character of the masonry, and the usual accompaniment to all ruins in Ireland—the latticed ivy—now forming a rich and luxuriant marginal border on the upper portions of the walls. The traveller, however, who keeps in view "the days of auld langsyne," will be amply repaid on entering the precincts of this time-worn little spot.

The east window was of four-lights, with a circle in the head divided into six compartments, with a trefoil opening in each. One of the mullions has fallen, and this loss has caused a slight change in the tracery, by displacing the stones forming the principal or circular compartment of the window. Under the sill of the window outside, is a richly moulded belt or string course, across the end of the church, the central bead carved as rope-work, and one end grasped by the figure of a dog.

Ledwich, in his antiquities, relates an absurd tradition about the "rope and dog," making the dog a demon! which the monks of old had caught in the act of pulling down their little church during the progress of building, and as an example to evil-doers, they had the "old-boy" tied by a rope and carved on the walls of the abbey to commemorate the event.

The date is probably the close of the thirteenth century. Two sculptured heads I found in the adjoining graveyard strongly resemble the engraving of a head in page 176 of "Paley's Manual of Gothic Architecture:" these heads appear designed to receive the hood moulding of the entrance doorway, not a vestige of which now remains. About one-third the length of the church (from west end) is covered in with a rubble stone vault, in good preservation.

At half a mile north of the abbey is found one of those rude memorials of ages long past over, a "*cromlech*," supposed to have existed long prior to the introduction of Christianity into these countries.

I had nearly forgotten to mention a sedilia in the south wall, having only two seats, an arrangement rather unusual.

Mohill. J. K.

COMPETITION.—The time for lodging plans for the drainage of Guildford has been extended from 1st to 15th January next.

Miscellanea.

The Villa Torlonia.—It is often said that the Italian princes are poor, but it may be said with great truth that they live in the finest palaces in the world. Those erected by cardinals in the fifteenth and sixteenth centuries are grand and sumptuous in the extreme. Labour was cheap, materials were at hand, and the wealth of the great was abundant. But it seems wonderful that such a costly work as the Villa Torlonia should be commenced and finished at the present day, when wealth is so generally diffused; yet in this instance it is easily explained. The dukes and princes of this family have enriched themselves by speculations in trade and monetary concerns. Their intimacy with the English has helped them to some of the secrets by which wealth may be quickly obtained. They are bankers of the Roman states; and it is said they have the monopoly in tobacco and some other luxuries, which secures to them great revenues. The Villa Torlonia is situated on the Via Pia, about two miles east of Rome—a favourite walk of the cardinals. It is built on the plan of the ancient villas, as a retreat from the burning atmosphere of a scorching city. The rooms are low and small, with floors finely wrought in Mosaics and polished marble, which run through twenty apartments. The walls are covered with beautiful frescoes, though not of Raffaelle or the Caracci, yet executed by the first artists of the present age. The costly furniture and gilded decorations surpass anything we can conceive, either ancient or modern. The portico is supported by fluted pillars, forming a lofty terrace, upon which a large company may walk and enjoy the evening air, and view the landscape presented by the Campagna, the Sabine hills, and the distant Apennines. The theatre, built of white marble, is a model of surpassing beauty. It would repay an architect to make a journey purposely to see it, if he saw nothing else. The apartments surrounding this gem of architecture are stored with every luxury that kings and princes could desire. The spacious grounds afford numerous out-door amusements. There is an amphitheatre for gymnastics; and if chivalry should ever return, the lists are ready prepared for tilts and tournaments, provided with seats for thousands of spectators. Such is the country residence of the Prince Torlonia. But the principal family mansion is the Palazzo Torlonia in Rome, occupied by his brother, the Duc di Bracciano. This also is full of all the magnificence that wealth can command. The banking establishment, so important to Englishmen, is on the front of the mansion, in the Piazza Torlonia, as you enter the grand quadrangle.—*Sights in Italy.*

The Greatest of all Ironmasters.—There seems to be some reason in the complaint of one of the 'great masters,' Mr. Crawshay, as proprietor of works at Forest of Dean, Cyfarthfa, Hirwain, and Newbridge, and merchant in Upper Thames-street, that, in the midst of the "sad state of depression" under which the trade at present labours,—with a "competition such that bar-iron and rails may be had for 5*l.* per ton—a price below the present actual cost of production," and without the power to manufacture bank notes,—he and his competitive fellows find themselves so utterly unable to compete with the Bank of England, which not only has that power, but also practises as the greatest of all ironmasters, under-selling even the greatest of all the now comparatively small masters by help of this paper note monopoly. Mr. Crawshay thinks that the privilege of manufacturing bank notes should be allowed the 'trade' in general, if the "charter to the Bank of England for note-making is to be construed to extend to making iron." He would then, he thinks, be able to compete even with it, while still paying "25,000*l.* weekly, and at the end of each month, in wages."

At Holy Rhood Church, Southampton, now in course of demolition, one of the arches lately fell while the stones were about to be separately removed, for use in the reconstruction, killing a workman who had overlifted it while putting in shores without being warned of the probable consequence.

Irish Instruction in Civil Engineering.—We have been favoured with a copy of a "Notice to the inhabitants of Dalkey and its vicinity," issued by a "Civil Engineer and Land Surveyor (late of her Majesty's Engineering Department)," who has opened a school at Skibereen. As an example of the sort of schoolmaster that is abroad, we give the learned gentleman the advantage of our circulation, without the usual charge for advertising. He says the school is,—"For the instruction *of* reading, writing, history, *dictionary*, arithmetic, geography, guaging, mensuration and dialing geometry, gunnery and fortification, navigation, with plane rectangular middle latitude and great circle sailing. Trigonometrical surveying and leveling together with several other branches *on* the mathematics *to* numerous to mention with their application to the construction of common roads, rail roads, canals harbours docks and tunnels, viaducts aqueducts improvement of lakes rivers bays &c. by drainage embankment and cultivation. Gentlemen—desirous of being instructed in an elementary course of surveying and leveling will find this a most desirable opportunity (not like as in other schools where science is neglected and practice not understood,) it shall be prosecuted with zeal and attention and on moderate terms which may be known on application to the proprietor. The school is supplied with maps of the globe jointly and severly—together with field and office instruments for surveying leveling and mapping. Testimonials of the highest refrences, &c." Alack! alack!

Liberal Encouragement to Architects.—Mr. Editor: Pray, look at the third plate in "Pugin's Contrasts," and say whether the sarcasm levelled at cheap competitions in '36 is not become, almost *verbatim et literatim*, a positive truism in this present '48? It stands thus:—"New Church: open competition.—For the best design, Five Pounds. The four next best in proportion."—*Pugin's Contrasts*, 1836. Then see advertisement in Builder, Oct. 7, 1848:—"Church of St. Thomas, Heptonstall, Halifax, &c., to accommodate *one thousand one hundred persons.* Premiums of 10*l.*, 7*l.*, and 5*l.* will be awarded." Call you this a contrast favourable to the prospects of the "youthful, unemployed, and aspiring architects" of 1848. Φ.

Royal Academy.—On Saturday, at the distribution of premiums, silver medals were awarded for drawings of the Whitehall front of the Banqueting House, to Mr. John Bidlake and Mr. Charles Augustus Gould.

The Liverpool Architectural and Archæological Society.—On Wednesday evening in last week, a numerous meeting of the members of the recently-formed but prosperous Liverpool Architectural and Archæological Society was held at the Royal Institution, in Colquitt-street, in that town, the Rev. David James, F.S.A., of Kirkdale, in the chair. A letter was read from the respected antiquary, John Britton, expressive of his good wishes, and presenting to the society several works, including a copy of his recent publication, "The authorship of the Letters of Junius Elucidated."* A cordial vote of thanks was passed to Mr. Britton, and it was unanimously resolved that to mark their sense of the value of Mr. Britton's long devotion to architectural antiquarian pursuits, the treasurer be instructed to send a contribution in the name of the society to the Britton testimonial. After the transaction of miscellaneous business, Mr. J. A. Picton read an interesting historical compilation, entitled "Ancient Liverpool in its Buildings and Architecture." We are forced by pressure of matter to postpone our own notes of a recent visit to Liverpool till next week, when we hope to illustrate them with a fine view of one of the principal buildings now being erected there, and to avail ourselves of some part of Mr. Picton's paper.

* We have long had this interesting work before us with the intention of recommending it to our readers, satisfied that, although the subject might seem somewhat out of our province, the fact of its being the work of Mr. Britton, to whom we all owe so much, would bring it there. Mr. Britton has thrown much curious light upon this vexatious and mysterious subject, and has produced a book, in which many will find deep interest, and all great gratification. It is published by J. R. Smith, of Old Compton-street. It has led to some very able papers on the subject in the *Athenæum*, *Gentleman's Magazine*, and elsewhere. Our readers will hear with pleasure that Mr. Britton's health is restored, and that he is now proceeding vigorously with his autobiography for the subscribers to the "testimonial."

Plan for increasing the Heat from a common Fire, and improving Ventilation.—The greatest portion of heat, or heated air, from a common fire, passes upwards through the flue, leaving only a small portion to be thrown off by radiation from the front. This small portion is still further diminished by the draught which is necessary to support combustion, forcing it continually back into the fire; so that, in proportion to the heat really obtained, the waste is enormous, and the constant draught of fresh air which the fire requires makes the opposite side of a large room, in many cases, colder than if there was no fire. Why should we submit to this continual waste and inefficiency, while the same fire that requires the draught of fresh air could warm it before it enters at the opposite side of the room. By making it do this, we should get more than treble the amount of heat, have it evolved at that part of the room most distant from the fire, and by this means establish very nearly an equilibrium of temperature. The warm air thus introduced would be available both for the purpose of combustion and respiration, being a continued stream not only of *warm* but of *fresh* air, without requiring the least assistance from door or window. The plan I propose is a reciprocating, or self-acting arrangement, by which a spiral current of air is formed, commencing externally by means of a small grating, or air-brick, let into the front wall, and carried through a pipe (for which a chase may be cut behind the skirting), to the side of the stove passing near the fire. The air within becoming immediately heated, is forced by the greater gravity of the cold air from without, through the continuation of the pipe at the opposite side of the fire, and from thence, by a sheet-iron tube under the floor, behind the skirting, or otherwise, to the opposite extremity of the apartment. It there emerges in a heated state, warms the whole room in its passage across to the fire again, and having supplied entirely the place of the cold air usually let in through doors and apertures, it passes through the flue, and gives place to the fresh and continued (warm) supply which it draws after it, mingles again with the external atmosphere, and completes the spiral and reciprocating current.*

F.

Stone Quarries.—Sir: To all those who may be in search for stone quarries, I should recommend a visit to the *Black Isle* in Rossshire, N.B., between Cromartie and Farintosh, which abounds in quarries of free-stone of red and brown, and is so near the sea-shore that a boat may almost go alongside the quarries, which have only been worked for the locality. A quarry extends from the parish of Farintosh to the parish of Avoch, about four miles: at Mollochey there are two large hills of granite close to the sea-shore. At the head of the river Avoch is a fine quarry of free stone, fit for foot pavement: and to all contractors who may want foot-pavement stone such as comes from Caithness, I should recommend them to visit the Orkney Islands, where it abounds in nearly all the islands, and might be made a trade of between them and France. F. Urquhart.

The State of Allington Castle.—Sir: The observation of your romantic correspondent on "Allingham (*qu.* Allington) Castle," would lead unsuspecting persons to the conclusion that some *new* desecration was in progress. Had the writer been, as his remarks would imply, much in the habit of dreaming under the oaks of Sandling, he would have been aware of the inaccuracy of which he is, doubtless ignorantly, guilty. But supposing him to be a stranger to the history of these venerable ruins, he must allow me, as a person many years acquainted with the locality, to give a true version of the story. The additions that had been made to the original walls, for the purpose of rendering the place habitable, were not of recent date—perhaps not less than a century's standing; nevertheless, the area and precincts of the castle were much encumbered with the necessary appendages of two farm houses, and its really beautiful remains hidden from view. Part of these obstructions, so far as connected with the smaller farm, have been removed,

* We insert the above, not as presenting any novelty, but because, often as the idea has been dwelt upon, it is comparatively seldom carried into effect.—Ed.

and, in so doing, every care was taken to leave the "old building" intact. These alterations appear to be referred to in the paragraph,—"This latter has been dismantled, the roof torn off, the floors taken away for cattle-sheds, the windows demolished, and the materials converted into peasant cottages;" all which is quite untrue, as far as applies to the original structure. VERITAS.

TENDERS

For building the basement of the new Wealeyan Chapel, Liverpool-road, Islington.

King	£1,025
Grimsdell	999
Piper	990
Curtis	909
Wood	887
Jeffrey	864
Smith (accepted)	829

TO CORRESPONDENTS.

"*Inquirer*" (St. Isaac's Church).—The portico with one intercolumniation of projection is the east or west portico. The portico with the deeper projection is the north or south portico.

Received.—"A Constant Reader," "T. P. W.," "G. H. N.," "W. C.," "S. T." (Holborn), "E. A.," "J. C.," "L.," "A Sufferer," "W. H.," "C. N.," "E. E.," "W. P. G.," "Bosch" (shall appear), "A Native" (Hythe), "W. T.," "W. C.," "T. L." (shall appear), "S. M.," "A Subscriber," "H. F.," "W. A. M.," "A Non-competitor," "F. S." (the mode has been given in a previous volume of THE BUILDER), "J. N. F.," "W. H." (Dover), "W. H. R." (send us a slight tracing and we will reply), "Fair Play," "R. R. B." (we have written), "W. J. R.," "R. C." (thanks), "J. D." (Norland-road), "W. C." ("Learn to Labour"), "Dr. K.," "Sir H. D.," "A Mason," "W. W.," "T. S." "The Song of Songs, which is Solomon's," Illuminated by Owen Jones (Longman and Co., 1849); "The Words of the Preacher, Son of David," illuminated by Owen Jones (Longman and Co., 1849); "Report on the City Sewers," by Messrs. Walker, Brunel, and W. Cubitt.

"*Blind Builders.*"—We are asked to say that the list of tenders under this head in the last number but one, for alterations at a house in Threadneedle-street, should have been as follows:—

Sherwood	£397
Hawtrey	394
Rider	355
Sander	338
Green	270
Waller (accepted)	253

"*Books.*"—Notices of several books are unavoidably postponed.

"*Books, Prices, and Addresses.*"—We have not time to point out books or find addresses.

ADVERTISEMENTS.

TO BUILDERS and CARPENTERS.—Elliptic Stoves, double backs, 3d. per inch. Registers, 6½d 7d., 8d. per inch.
Cottage Ranges, with Ovens and Boilers, 3 ft. 2 in., 40s.; 3 ft. 4 in 42s.; 3 ft. 6 in., 44s.
Self-acting Ranges, with Circular Oven and Back Boiler, best Wrought Bars and Bright Fittings,
3 ft., £3. 3s. 3 ft. 6, £3. 12s. 6d. 4 ft., £4.
Best Patent Cut Clasp.
4½d. 5d. 7d. 10d. 1s. 2d. 1s. 8d. per 1,000.
3d. 4d. 6d. 8d. 10d. 20d.
Best Sheet Floor Brads 13s. per cwt.
Best Town Glue 38s. Do. Scotch, 52s. per cwt.
Best Patent Sash Line.
4s. 3d. 5s. 6s. 6d. 7s. 6d. 10s. 12s. per gross.
1 2 3 4 5 6
At F. B. WILLIAMSON'S IRONMONGERY and STOVE WAREHOUSE, 35, Chiswell-street, Finsbury-square.
Lists of Prices had on application at the Warehouse, or by letter pre-paid, inclosing postage stamp.—Warehouse closes at 7 o'clock.

OLD-ESTABLISHED WHOLESALE IRONMONGERY WAREHOUSE, Kitchen-range, and Stove-grate Manufactory 18, Cross-street, Walworth.
JOHN GRICE most respectfully solicits the attention of Architects, Builders, and Carpenters, to his Stock of Black and Bright Stoves, Kitchen Ranges, &c., &c.
Black Registers, from 6d. per in. and upwards.
Bright ditto with Black and Bright Bars, 3l. 10s. and upwards.
Self-acting Kitchen Ranges, with Oven and Back Boiler, Wrought Bars, Fittings Bright:—
3 ft. 3 ft. 6 in. 4 ft.
2l. 18s. 3l. 7s. 3l. 15s.
Elliptic Stoves, 3d. per in.
All articles made on the premises and warranted, and delivered free of expense within five miles of London. Bell-hanging in superior style, hung in secret, 8s. per pull.

TO ARCHITECTS, BUILDERS, &c.
REDUCED LIST OF PRICES.—R. HENLY and Co., WHOLESALE IRONMONGERS, and Manufacturers of KITCHEN-RANGES, STOVES, &c., 196, Blackfriars-road, and 117, Union-street, Borough.
Strong Self-acting Kitchen Ranges, with Back Boiler and Oven, and Wrought Bars:—
3 ft. 3 ft. 3 in. 3 ft. 6 in. 3 ft. 9 in. 4 ft.
£3. £3. 10s. £3. 15s. £4. £4. 10s.
Henly's Patent Improved, with back Boiler and Wrought Iron Oven:—3 ft. 3 ft. 3 in. 3 ft. 6 in. 3 ft. 9 in. 4 ft.
£5. £5. 15s. £6. 5s. £6. 10s. £7.
Best Register Stoves, at 7d., 8d., and 9d. per inch.
Do. Elliptic do., at 3½d., and 4d. do.
Manufacturer of WOLFASTON'S PATENT REGISTER STOVES, a certain cure for SMOKY CHIMNEYS, and effecting a great saving in fuel. To be seen in use daily.
Orders from the Country, accompanied with a remittance or reference, will meet with prompt attention.

TO BUILDERS, CARPENTERS, AND OTHERS.
BENJAMIN WALMSLEY, Wholesale Ironmonger, Brass-founder, Stove-grate, and Kitchen-range Manufacturer, at the Padlock, 127, London-road, Southwark.
Self-acting ranges, with oven and boiler and revolving shelves complete.
3 feet, 3l. 10s. 3 feet 6 inches, 3l.
Register-stoves, from 6d. an inch and upwards.
Elliptic-stoves, with double backs, 3d. an inch.
Washing-coppers, 1s. 3d. per lb.
Sash pullies (iron bd.), 8s. per gross. Sash weights, 6s. per cwt.
Cast butts, per dozen pair.
2 inch, 10d. 2½ inch, 1s. 3d. 3 inch, 1s. 9d.
Best cut clasp, per thousand.
4d., 5½d.; 6d., 7d.; 10d., 1s. 3d.; 20d., 1s. 7d.
Every description of ironmongery, brass-foundry, &c., adapted to the use of builders, upholders, cabinet-makers, bell-hangers, smiths, wheelwrights, and others, of quality and at prices that defy competition. Iron and spring steel.

CHEAP ORNAMENTAL GLASS.—I beg to inform my friends and the public, that I have now completed a new ENGINE, and, owing to the facility with which I can execute orders, I am enabled to reduce my former prices considerably. The prices are now from ONE SHILLING PER FOOT SUP., and borders from SIXPENCE PER FOOT RUN. A large quantity of the cheapest patterns always in stock. Embossing and painted work on the most moderate terms.—CHARLES LONG, No. 1, King-street, Baker-street, Portman-square.—Cash only.

PLATE GLASS.—Mr. AUGS. de GRANDRY begs to inform his friends and the trade in general, that he has opened, at Paul's Wharf, Upper Thames-street, next to the Citizen and Iron Steam-boat pier, on behalf of the ST. GOBAIN, ST. QUIRIN, AND CIREY PLATE GLASS COMPANIES, a warehouse for the sale of their Plate Glass, so well known for its good substance, superior finish, and brilliancy of colour.
Mr. de GRANDRY is prepared to undertake any contract, and begs to recommend his extensive and fine stock to the trade, assuring them that every effort will be used to deserve their patronage, by superior quality, low prices, and promptness in the execution of the orders entrusted to him.

PATENT PLATE GLASS.—HETLEY and Co. beg to inform Architects, Builders, and the Trade generally, that their new Tariff of PRICES for the above is now ready, and will be forwarded on application. A REDUCTION of about 40 per cent. has been made on the usual Glazing sizes.—Sheet, Crown, and Ornamental Window-Glass Warehouse, 35, Soho-square, London.—ROUGH PLATE GLASS.

E. and W. H. JACKSON beg to call the attention of Builders and the trade to the reduced prices of their PATENT PLATE GLASS, which, from its cheapness, is now superseding crown in all respectable dwelling-houses. BRITISH and ROUGH PLATE, CROWN, SHEET, STAINED, and ORNAMENTAL GLASS, supplied of the best manufacture, and at the lowest terms. List of prices, estimates, and every information can be had on application at their warehouse, 215, Oxford-street.

THE UNION PLATE GLASS COMPANY beg to call the attention of architects, surveyors, builders, large consumers, and the trade generally, to the quality, colour, and substance of their highly-finished glass, and as the discounts vary according to size, they prefer giving a special estimate for each quantity required. To encourage the use of Plate Glass for glazing purposes, the price is considerably reduced, which will, for its durability and appearance, insure the preference to any other description.
ROUGH PLATE GLASS supplied for skylights, warehouses, workshops, and flooring, 3-8ths, ½, ⅝, and 1 inch thick.
London Warehouse, 99, Hatton-garden, Holborn.
H. CHRISTIE, Agent.

WINDOW GLASS. — THOMAS MILLINGTON solicits an inspection of the different GLASSES he has now in stock, the qualities of which will be found to be very superior.—87, Bishopsgate-street, Without.
NEW TARIFF.—Sheet in various large dimensions delivered free in London.

Common in	100 feet cases		20s. 0d.
Do.	200	do.	32s. 0d.
Thirds	200	do.	42s. 6d.
Seconds	200	do.	60s. 8d.
Best (very superior)		do.	100s. 0d.

ROUGH PLATE GLASS for WINDOWS, SKYLIGHTS, and FLOORS in sizes not exceeding 5 feet superficial.

¼ thick	1s. 0d.	½ inch	2s. 6d.
3-8th inch	1s. 2d.	¾ inch	3s. 6d. per foot.
½ inch	1s. 6d.		

PATENT ROUGH PLATE TILES.

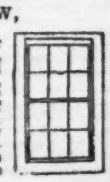
¼ thick	6s. 11d.	3-8th inch	1s. 7d.
½ inch	1s. 3d.	¾ inch	2s. 6d. each.

GLASS DOMES for SKYLIGHTS, from 12 to 50 inches in diameter. These are well worth notice.

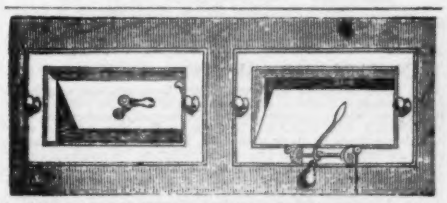
C C C Crown per crate 18 tables		£1 16 0
C C do.	do.	2 0 0
Fourths do.	do.	2 7 0
Thirds do.	do.	3 2 6

Large Crown Squares in 100 feet boxes ..... 2½d. per foot.
8 by 6 — 10 by 8 do ..... 2d. do.
Very superior Plate for Pictures and Windows, averaging 26oz. from 1s. 6d. per foot upwards.

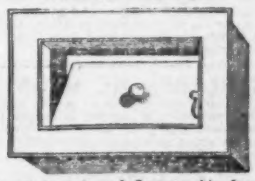
CHAS. WM. WATERLOW,
MANUFACTURER

of Sashes and Frames, and Joiner to the Trade, 131, Bunhill-row, Finsbury-square.—Well-seasoned materials, superior workmanship, lowest prices.—Upwards of 400 DOORS, and a large variety of Sashes and Frames, always on sale. Glazed goods securely packed for the country. Steam-struck Mouldings in any quantity.—N.B. This Establishment is worth the notice of all engaged in building.


MESSRS. WOOD & Co., DECORATIVE ARTISTS, SIGN and GLASS WRITERS, GRAINERS, HOUSE PAINTERS, and GENERAL CONTRACTORS for REPAIRS, &c. &c.
70, York-road, Lambeth; and 28, Cross-street, Blackfriars-road.



DR. ARNOTT'S VALVES for thoroughly VENTILATING APARTMENTS of every description. F. EDWARDS having had the advantage of making them under the immediate direction and patronage of Dr. Arnott, enables him to present the public with Valves of the most approved principle for general use. Prices from 7s. 6d. to 20s. and upwards. A prospectus, containing every requisite information, to be had on application to F. EDWARDS, 42, Poland-street, Oxford-street, London.

DR. ARNOTT'S VENTILATING CHIMNEY VALVE,

For carrying off Heated and Impure Air from Bed-rooms Sitting-rooms, Counting-houses, and Apartments generally.
LIST OF PRICES.

	First size, 11 by 8.	Second size, 16 by 9.
Plain Iron Valve	7 6	12 0
Bronzed and Leathered	9 0	14 0
Japanned, white with Gold lines	13 0	21 0
Brass Front	17 0	34 0

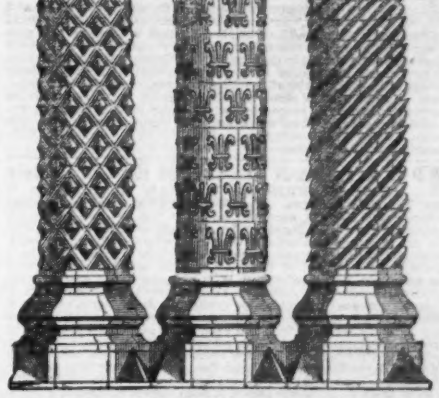
Packing Cases (if required), 1s. 3d. each.
Manufactured by HART and SONS, 53, 54, 55, Wych-street, Strand, London.

BRICKS WANTED for delivery within two months after Christmas—about 500,000 good, sound, STOCK and PLACE BRICKS. Letters stating lowest prices, delivered alongside, in Thames, and name of locality where made, addressed to X. A., Messrs. Knight and Foster, Stationers, Eastcheap, City.

WHITE SUFFOLK and RED FACING BRICKS, of superior quality. Moulded Bricks to any pattern.—Apply to Mr. BENJAMIN GOUGH, 27, Newington-crescent, Newington-butts.
N.B. Cowley and Kent Bricks of every description, and Kentish Rag Stone direct from the Quarries.

WORCESTER ENCAUSTIC TILE WORKS.—The Proprietors, who are retiring from Business, are enabled to offer their STOCK of TILES at a very Reduced Rate. Ornamental Pavements of the best description, at 1s. 2d. per square foot; "Seconds," at 9d.—N.B. These Tiles being manufactured in exact imitation of the best ancient specimens, are more suitable for the restoration of ancient Churches and Buildings than any others of modern make; and the present opportunity affords Architects and others the means of adopting a very beautiful decoration at the ordinary cost of stone. Arrangements have been made for any future "matchings" that may be required.—Specimens may be seen in London, at Messrs. GREIVE and GRELLIER'S Marble Wharf, Belvidere road, Waterloo-bridge; and in the country, at the Works, Palace-row, Worcester.

FIRE BRICKS.—WARD and HART, Honduras Wharf, Bankside, respectfully solicit the attention of Gas Companies, Builders, Engineers, Oven Builders, Shippers, and others to the fact that they have now completed their Stock of Stourbridge, Welsh, and Newcastle Fire Bricks, Lumps, and Tiles, of all sizes and shapes, which they are offering with every advantage to purchasers. Goods may be had from ships in the river at a great reduction. Fire Clays, Loams, Dutch Clinkers, Stock Bricks, Windsor Bricks, Oven Tiles, Pan, Plain, Ridge, and Paving ditto, Moulding Sand, House Sand (red and white), River Sand, Ballast, Lime, Cement, Malt and Corn-drying Kiln Tiles, now in such general use for malting, &c. &c., Chimney-pots, Drain Pipes, Tiles, &c. &c. Goods made to pattern at the shortest notice. Sanitary Pipes of every description. Country orders executed with dispatch. Country Builders will find this the cheapest market for the above.

TO ARCHITECTS, BUILDERS, AND RAILWAY CONTRACTORS.

BRICKS and TILES, plain and moulded, manufactured in a superior manner, from fine beds of clay on the Earl of Leicester's estate at Holkham, of red, blue, and Bath stone colours, both for plain and ornamental work. Specimens to be seen at Blashfield's Wharf, Commercial-road, Lambeth (near Waterloo-bridge), consisting of plain bricks of the usual size for building purposes, moulded bricks for forming Tudor chimney shafts, of various designs, label mouldings, cornices, copings, window sills, dressings for windows and doors, mullions, ridges, skirtings, &c. Also roofing and paving tiles of an ornamental character in the same materials. The moulded bricks are fully equal to the best specimens referred to under the articles "Brickwork," in Nos. 290 and 291, of "The Builder."

SMOKY CHIMNEYS caused by WIND are guaranteed to be cured by the application of DAY'S newly-invented SIMPLEX WINDGUARDS, which offer the following advantages over the well-tried invention, known as DAY'S PATENT WINDGUARD; viz., greater cheapness and durability, impossibility of clogging with soot, and the prevention of the descent of smoke down adjoining chimnies. Price in Galvanized Iron, 23s.; Size for Kitchen Chimnies, 40s.; To be seen and tested at Mr. JEAKES, the Sole Proprietor, 51, Great Russell-street, Bloomsbury. Prospectuses forwarded on application. Country licenses for manufacturers granted.

SMOKY CHIMNEYS.—"NO CURE NO PAY."
J. WILSON, Bricklayer and Surveyor of Chimneys, 1, Vale-place, Hammersmith, begs to inform architects, surveyors, builders, and others, that he can guarantee a perfect cure of chimneys from smoking into rooms, and on the equitable terms of "No cure no pay." References and testimonials of the highest respectability can be given.
N.B. WILSON & Co.'s PATENT CHIMNEY-POTS for the Cure of Smoky Chimneys, which have been extensively tested for the last four years, can be forwarded to any part of the Kingdom on receipt of a Post-office order. Prices and prospectuses by return of post. Licenses granted to manufacturers.
MANUFACTORY—VALE-PLACE, HAMMERSMITH, MIDDLESEX.

FLEXIBLE INDIA-RUBBER PIPES AND TUBING,
For Railway Companies, Brewers, Distillers, Fire Engines, Gas Companies, Gardening and Agricultural purposes, &c.
THE PATENT VULCANIZED INDIA-RUBBER HOSE-PIPES are made to stand hot liquor, and acids without injury—do not become hard or stiff in any temperature (but are always perfectly flexible) and as they require no application of oil or dressing, are particularly well adapted for locomotive engines, railway cranes, fire engines, pumps, gas, beer engines, gardens, and all purposes where a perfectly flexible pipe is required. Made all sizes, from ¼ inch bore upwards, and of any length to order. Vulcanized India rubber garden hose fitted with brass-taps, copper branch and rose complete, ready to be attached to pumps, water-butts, or cisterns. Sole manufacturer, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.
N.B. Vulcanized India-rubber washers of all sizes for joints or hot-water and steam pipes, and vulcanized sheet rubber any thickness for all kinds of joints, and other purposes.

LIGHTERAGE.—To Contractors, Builders, Stone, Timber, and Slate Merchants, or others requiring Lighterage.—CHARLES STRUTTON, Lighterman and Timber Rafter, having a large number of craft of all sizes, is ready to undertake large or small CONTRACTS at prices particularly advantageous to his employers.—34, Commercial-road, Lambeth (near Waterloo-bridge), and Trinity-street, Rotherhithe (near the Commercial Docks).—BARGES LET on HIRE.

PAPER-HANGINGS, MANUFACTURED UNDER HER MAJESTY'S ROYAL LETTERS PATENT.

E. T. ARCHER, 451, Oxford-street, solicits an inspection of the various DECORATIVE PAPERS, fitted up in panels on the walls of the extensive range of apartments, built expressly for that purpose; where also is kept an extensive stock of every variety of Paper-hangings, at the lowest possible price and of the best manufacture, in English and French Designs, by the best Artists; and where may be had a large assortment of French and other Continental Paper-hangings always on hand.—Builders and large Consumers are particularly invited to the above.—451, Oxford-street.

GREAVES'S BLUE LIAS LIME and LIAS CEMENT.—Messrs. RUTTY and VEREY'S, 2, South Wharf, Paddington Basin. Works at Stratford-on-Avon and Southam. GLAZED STONE WARE DRAIN PIPES on hand.

ATKINSON'S CEMENT.—WILLIAM WOOD, Jun., Manufacturer of Roman, Portland, and Bath Cement, Blue Lias Lime Works, CHURCH STREET, ROTHERHITHE, Sole Consignee for Atkinson's Cement.—Cement Chimney-pots of every pattern.

ROMAN CEMENT, made according to the specification of Parker's Patent, may be had genuine of J. M. BLASHFIELD (late Wyatt, Parker, and Co.), Waterloo Dock Wharf, Commercial-road, Lambeth, No. 1, Ironsgate Wharf, Paddington, and at the Manufactory, Mill Wall, Poplar. Also Plaster, Mastic, Tarras, Bricks, Tiles, &c.

PARIAN CEMENT, for internal Stucco, instead of PLASTER OF PARIS, may be painted and papered within twenty hours of its application on the bare walls; and rooms may be rendered habitable by its use before the materials commonly adopted would begin to dry. It is worked without the slightest difficulty. A finer quality is also prepared for ornamental plastering, for encaustic painting, &c. &c. Specimens of which may be seen at the Manufactory of the Patentees, CHAS. FRANCIS and SONS, Cement Works, Nine Elms, London.

KEENE'S PATENT MARBLE CEMENT forms an exceedingly hard and indestructible Stucco, which may either be prepared for paint, or finished in imitation of stone, by the addition of Portland or other stone dust.

It is a cheap and efficient substitute in place of wood for skirting, architrave, and other mouldings, in its application for which purposes it checks the progress of Fire and the attacks of Vermin.

Patentees and sole Manufacturers, J. B. WHITE and SONS, Millbank-street, Westminster, and Seel-street, Liverpool.

PORTLAND CEMENT.—J. B. WHITE and SONS, request reference to Nos. 284 and 285, pages 343 and 351, of "The Builder," for accounts of experiments on the strength of Portland Cements.—These trials show that for the practical purposes of building, the connecting power of Portland Cement exceeds that of Roman Cement in the proportion of four to one; thus marking it as the most fit material for turning the brick arches of Railway bridges and other works of a critical nature, while its firm adhesion to most sorts of stone, as well as bricks, combined with its eminently hydraulic properties, adapt it for such purposes as the building of sea and wharf walls, and the lining of reservoirs, cisterns, baths, &c. Manufacturers, J. B. WHITE and SONS, Millbank-street, Westminster.

PORTLAND CEMENT, solely MANUFACTURED by WILLIAM ASPDIN, Son of the Patentee.—Messrs. ROBINS, ASPDIN, and Co. request reference to No. 226, page 491; and also Nos. 284 and 285, pages 343 and 351 of "The Builder," for accounts of EXPERIMENTS on the strength of Portland Cements, whereby the great superiority of their Cement is manifest. This Cement has been proved for upwards of twenty years in the Thames Tunnel to resist the action of water; it is stronger in its cementitious qualities, harder, and more durable than any other description of Cement; it does not vegetate, oxydate, or turn green; nor is it affected by any atmospheric influence whatever the climate, resisting alike the action of frost and heat. It is manufactured to set in from five to sixty minutes. For all purposes that Cement is applicable the Proprietors challenge competition.—Orders received by Messrs. ROBINS, ASPDIN, and Company, at their Manufactory, Northfleet, Kent, and their Wharf, Great Scotland-yard, Whitehall; also by their Agent at the Depôt, 1, Back Goree, Liverpool.

JOHNS and CO.'S PATENT STUCCO CEMENT and PAINT.—The attention of Architects, Builders, Plasterers, Painters, Merchants, and the Public generally is solicited to the many advantages attached to these celebrated Materials, which, for their appearance, durability, imperviousness, utter resistance to frost or heat, and general economy, distinguish them from all other cements and paints, and fully justify the confidence reposed in them, as shewn by the numero s testimonials received from public bodies and private individuals of the first importance.—Prospectuses and particulars may be obtained from the sole agent, PHILIP HARE, at the Warehouse, 22, Steel-yard, Upper Thames-street.

MARTIN'S PATENT FIRE-PROOF and ORNAMENTAL CEMENT—REDUCTION of PRICE.—The Patentees beg to inform their Friends and the Public that they have made arrangements which enable them to offer this invaluable cement at a considerably reduced price. It has now been before the public so many years, and has obtained so high a standing in the estimation of all who have used it, that it is unnecessary to comment on its merits. The Patentees, however, feel called upon to observe, that by its use—from the greater amount of surface which a given quantity will cover, and the small amount of labour required in working it, a saving of 25 to 30 per cent. is effected as compared with other cements for internal use. Specimens shewing its beauty, hardness, and applicability to all plain and ornamental purposes, may be seen; and the Cement in any quantity obtained of the Patentees, Messrs. STEVENS and SON, at their Plaster and Cement Works, 186, Drury-lane, London.

TO THE BUILDING PUBLIC.

FIRST-RATE ORNAMENTS in PORTLAND, ROMAN and other CEMENTS, and PLASTER of PARIS, at reasonable prices, consisting of Vases, Balusters, Capitals, perforated Panellings, Cantilevers, Brackets, Trusses, Wreaths, Scrolls, Masques, Heads, Figures, Friezes, Gothic and other Chimney-Shafts, Soffits, Bed-mouids, Paterae, &c., &c., 36-inch Centre, Flowers fixed complete, 24s. each, smaller in proportion An assortment of Shop-front Trusses always ready for fixing.—JOHN HERBERT and SON, Modellers, &c., 42, Parker-street Drury-lane.

TODD'S PATENT METALLIC PROTOXIDE PAINT, for Stucco Fronts, Brickwork, Iron, Wood, and every description of Painting. This Paint has been most severely tested for nearly four years, by men of great experience, and has been extensively used under the superintendence of Architects, Engineers, and Surveyors of the greatest eminence.—Orders to be addressed to Mr. B. TODD, Patentee, 23, Dean-street Soho, London.

PATENT MINERAL PAINT.—After three years' trial on the sides and bottoms of iron and timber built ships, this PAINT has proved itself equal to copper as a protection from vegetation, as well as the sea-worm and all other adhesive matter. It is also peculiarly adapted for spouts and gutters, iron railing, felt or wooden roofs, tarpaulings, damp walls, or any other surface that requires to be made waterproof at a small cost, and is ready for use, in casks of 2 to 20 gallons. Brilliant black, 2s. per gallon; rich brown, 2s. 9d. per gallon,

EMERSON'S PATENT LIQUID CEMENT.

This valuable and economic PAINT is so adhesive that it will cling to any surface—brick, Roman cement, and all other plastered work; and, being a rich cream colour, is more pleasing and natural in appearance than oil, and at an eighth of the cost. It is ready for use, will dry in a few hours, and possesses the property of protecting the walls as well as Roman cement.—Sold in casks of 1 cwt., 2 cwt., and 3 cwt., at 8s., 15s., and 21s. per cask.—GEORGE LEAR and Co., sole agents, 16, Basing-lane, Cheapside.

PAVING, 2s. 9d. PER SQUARE YARD, Basements, Foot-walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of Pavement laid down at the above low price, and the work guaranteed.—Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, 15, WHARF-ROAD, CITY-ROAD.—N.B. Country Agents and Railway Engineers and Contractors supplied with the best bitumen for covering bridges and arches.

PATENT METALLIC LAVA, WHITE AND ORNAMENTAL, for the interior of Churches, Museums, Halls, Vestibules, Conservatories, &c. &c.; BROWN, for Foot Pavement, Flooring, covering Railway Arches, Terraces, Roofs, &c. &c.—Manufactured only by Messrs. ORSI and ARMANI.—Specimens and list of prices can be obtained at the offices, 6, Guildhall Chambers, Basinghall-street, City; and at the office of "The Builder."

ABERDEEN GRANITE, ROCKHILL PAVING, &c.—ALEXANDER NICHOLSON, 12, Little Tower-street, London.—Agent for Poms Rockhill Quarries: A. and W. Nicol, Granite Merchants, Aberdeen; the Aberdeen Lime Company, Granite Merchants, Aberdeen; Neilson's Polished Granite Works, Aberdeen; the Herm Granite Quarries, &c. &c.

YORK STONE.—Buy your York Paving Slabs and Landings, your Bramley Fall, Portland, Park, Spring, and Harehill Block Stones, at the VICTORIA STONE WHARF, ISLE OF DOGS, opposite the Greenwich Hospital.

THE CHEAPEST WHARF IN LONDON FOR CASH.

Stone delivered to any wharf in the river in large or small quantities.

ANSTONE STONE WHARF, STANGATE.—Mr. GRISSELL has the honour to inform Architects and Builders that he has made arrangements for the SUPPLY of the ANSTONE STONE for all building purposes, and which can now be seen at the above wharf by application to Mr. W. G. WARDLE, of whom every necessary information can be obtained.—August 30, 1848.

ANSTON STONE, used for Building the New Houses of Parliament.—W. WRIGHT and Co. beg to inform Architects, Engineers, Builders, and others, the Anston Stone can be supplied in any quantity on the shortest notice. This valuable stone, so celebrated for its durability, colour, and texture, is well known, having been selected in preference to all others, by the Commissioners of Woods and Forests, for building the New Houses of Parliament. It is very superior for Monuments, Tombs, &c. &c.

W. Wright and Co. have made arrangements to have a stock always on hand at Brine's Marble and Stone Wharf, Horsfall-basin, Maiden-lane, King's-cross.—Any further information can be obtained on application to W. WRIGHT and Co., Anston, near Sheffield; or to T. SHARP, their Sole Agent in London, 27 Burton-crescent.

CAEN STONE, from the first Quarries of Allemagne. Depôt at the Whitby and Scotch Wharf, 14, Fore-street, Limehouse.

P. FOUCARD, quai des Abattoirs Caen (propriétaire des Carrières à Allemagne), begs leave to inform Builders, Architects, and others, that he has, on the above-mentioned wharf, 50,000 feet of the best stone ready to meet the demands of purchasers.—Contracts taken for any quantities.

Orders received by Mr. BASCHET, at 39, Stoney-street, Borough Market,—Cargoes shipped to order, from Caen, to any port.

CAEN and AUBIGNY STONE.— LUARD, BEEDHAM, and Co., Proprietors of extensive Quarries of best Caen Stone at Allemagne, and Aubigny Quarries, near Palaise, Normandy, beg respectfully to invite attention of Archæologists, Architects, Engineers, Surveyors, Builders, and others to the above. Caen Stone is too well known to need special notice. Aubigny Stone, from its fineness of grain, hardness of texture, beauty of colour, freedom from vents, shell, and great durability, ranks amongst the first for building and engineering purposes, hall paving, staircases, sculpture, tombs, cemetery works, and general masonry. L. B. and Co. have for many years supplied large quantities to various parts of the continent for public works, light-houses, &c., under the patronage of the Royal Engineers. Orders executed to all parts of the United Kingdom with despatch direct from the quarries. A large stock of seasoned Caen and Aubigny Stone always on hand, at Caen Sufferance Wharf, Rotherhithe, where samples and information may be obtained.—Office, 18, Southwark-square, Southwark-bridge-road, Southwark.

SAMUEL CUNDY, Mason and Builder, PIMLICO MARBLE and STONE WORKS, Belgrave Wharf, Pimlico, begs to inform Architects and the Public that MASONS' WORK, in all its branches, is executed on the most reasonable terms, in such manner as must meet the views of his Patrons.

GOTHIC WINDOWS and the more elaborate Works produced at a reduced cost, on a system that combines economy with the required accuracy and truthfulness.

FONTS from 5l. upwards.

MONUMENTS and TOMBS in great variety of design.

The most varied Assortment of ORNAMENTAL, PLAIN, and ENCAUSTIC TILES, in Town, on view.

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Goods Landed, Housed, and Delivered.

ENAMELLED SLATE.—CAUTION!— Some discarded workmen of Mr. Magnus's, having pirated his invention of marbling slate, and palmed upon the public trashy imitations, which unfortunately are frequently confounded with MAGNUS'S ENAMELLED SLATE, until a few months' wear has shown them in their true light, Mr. MAGNUS, who has expended a fortune in perfecting and introducing his enamelled slate articles (which articles have won for him the patronage of the highest personages in the realm, the approbation and support of the first architects, and the medal of the Royal Society of Arts), deems it incumbent upon him for his own protection, and that of the public, and for the just fame of his invention, to caution the inexperienced against these imitations. The public are, therefore, requested to observe that the address is MAGNUS, PIMLICO SLATE WORKS, and in future all articles of his manufacture will be so marked.

Patronised by her Majesty Prince Albert, the Duke of Wellington, the Duchess of Sutherland, the Duchess of Grafton, the Marquis of Westminster, the Marquis of Londonderry, the Earl of Denbigh, the Earl of Dartmouth, the Earl of Bandon, the Earl of Waldgrave, the Countess Wilton, Viscount Combermere, Lord Robert Grosvenor, the Bishop of London, the Bishop of Bath and Wells, the Hon. Col. Douglass Pennant, Mr. Assheton Smith, Col. Challoner, Sir J. Easthope, Sir Francis Lawley, Sir Ralph Howard, the Hon. Capt. Duncombe, Sir W. Gordon, the Hon. C. Shaw Lefevre, and numerous others of the nobility and gentry of this and other countries; by the most eminent architects and surveyors, the engineers and directors of the principal lines of railway, the Board of Public Works, and by the public generally.

SLATE SLABS.—Mr. MAGNUS having machinery in Wales capable of sawing and planing some thousands of tons annually, is enabled to supply the public at a much lower rate than any other house not possessing the same facilities. Parties ordering large quantities will be allowed a considerable discount off the recently reduced price list.—Address, MAGNUS, Pimlico Slate Works.

HEAL and SON'S BEDDING MANUFACTORY. The peculiar feature of their Establishment is, that it is confined exclusively to the Manufacture of Bedding, and consequently they are enabled to keep the largest Stock and greatest Variety of any House in London.

HEAL AND SON'S LIST OF BEDDING,

Containing a full description of Weights, Sizes, and Prices, sent free by post, on application to their Factory, 196, opposite the Chapel, Tottenham-court-road.

REDUCED PRICES.—WILLIAM CLEAVE, of Wilton-road, Pimlico Basin, begs to acquaint Builders and the Trade that he has now on hand, at his Manufactory (the first of its kind ever established), a very large Assortment of Dry and Well-seasoned OAK AND DEAL PREPARED FLOORING BOARDS and MATCH BOARDING of all sorts, from ¾ inch to 1¼ inch thick, planed to a parallel width and thickness, and at greatly Reduced Prices. Also, Timber, Deals, Oak Planks, Scantlings, Sash Bills, Moulding prepared by Machinery, Laths, &c.

Apply at W. CLEAVE'S Flooring Manufactory and Timber Yard, Wilton-road, Pimlico Basin, late C. MOORE and SON.

A REDUCTION in the PRICE of FLOOR BOARDS.—ALFRED ROSLING begs to inform the Trade and Consumers generally, that he has REDUCED the PRICE, and keeps constantly in stock a large and very general assortment of Prepared Floor Boards and Matched Boarding, laned to a parallel breadth and thickness, and fit for immediate use; also a variety of machine-prepared Mouldings, which are finished with great accuracy and attention to quality of workmanship.—Southwark Bridge Wharf, Bankside, and Old Barge Wharf, Upper Ground-street, Blackfriars.

THE LOWEST PRICES for CASH.— T. ADAMS (late S. DARE), MAHOGANY and TIMBER MERCHANT, Bermondsey New Road, near the Bricklayers' Arms. SEASONED FLOORING, MATCH-BOARDING FIT FOR IMMEDIATE USE, and MOULDINGS prepared by machinery. Cut Deals and Scantling of every dimension, Mahogany, Cedar, Rosewood, Wainscot, Elm, Beech, Oak, &c., in planks, boards, veneers, and logs; Pantile, Oak, and Fir Laths; Wheelwrights' Goods. All sawn and prepared goods delivered free of expense (except timber). Sawing charged at mill prices. Very extensive Drying Sheds. N.B.—T. A. has several lots of dry cut stuff in scantling and boards to sell cheap, previous to stock-taking at Christmas.

MUIR'S PATENT PLANING MACHINE.

SAW MILLS, GILLINGHAM-STREET, PIMLICO.

TIMBER of any size, PLANK, DEALS, and BATTENS, &c., Sawn on the most approved principle. Boards, &c., Prepared, Matched, and Grooved, by Muir's Patent Machinery. The Mills have all the advantages of navigation and water-carriage, being connected with the Thames by the Grosvenor Canal. Goods fetched from the docks and carted home free of charge.

Address to HENRY SOUTHAM,
Saw Mills, Gillingham-street, Pimlico.

N.B. Estimates given for Sawing and Planing.

WOOD THOROUGHLY SEASONED in DAYS instead of YEARS, by DAVISON and SYMINGTON'S PATENTED PROCESS, at the Patent Desiccating Company's Establishment (for Seasoning, Sawing, and Planing Wood), at the Grand Surrey Mills, immediately adjoining the Commercial and East Country Docks, Rotherhithe. The new process ensures the entire removal of moisture, hardens the gums, prevents further shrinkage, and strengthens the fibre.—For scale of prices, or license to work the patent, or any further information, address, post-paid, or apply to

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The Company's Agents are—Mr. WM. LANE, Irwell-buildings, Manchester; Mr. THOS. MILLIE, Kirkaldy; Messrs. RANDOLPH, ELLIOT, and Co., Glasgow; Messrs. CLIFFORD and BROWN, Hull.

JORDAN'S PATENT MACHINE CARVING and MOULDING WORKS for WOOD and STONE, Belvedere-road, Lambeth, and 154, Strand.—TAYLOR, WILLIAMS, and JORDAN beg to call the attention of the building community to a new feature of their establishment, and, at the same time, to thank their numerous patrons and friends for the very liberal support they have lately experienced, which, they assure them and the public, it will be their constant endeavour to deserve, by giving their customers an increasing share of the advantages arising from the constant improvements in the machinery which they have just succeeded in applying to the production of the most intricate carving in Caen and other freestones, and in statuary marble.

T., W., and J. particularly solicit the attention of architects and builders to the fact that, by the use of this machinery, a very large saving, both of time and money, is effected,—so great, indeed, that in many cases they can deliver a well-finished article in Caen stone for less money than it can be obtained in cement, while their wood-carving will, in some cases, be found to come into close competition with the best kinds of composition ornament.—For prices and estimates apply at 154, Strand.

TESTIMONIAL FROM CHARLES BARRY, ESQ.

"Westminster, May 16th, 1848.

"Gentlemen,—In reply to your letter requesting my opinion of your Patent Carving Machinery, I have much pleasure in stating, from an experience of more than two years, in its application to the production of the wood carvings of the House of Peers, and other apartments of the New Palace, at Westminster, that I am enabled to make the most favourable report concerning it, and to add that it has more than justified the favourable terms in which I recommended it in 1845 to her Majesty's Commissioners of Woods and Works for adoption.—I remain, Gentlemen, yours faithfully,

"CHARLES BARRY."

"Messrs. Taylor, Williams, and Jordan."

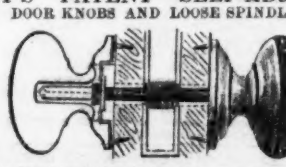
TO ARCHITECTS, CONTRACTORS, BUILDERS, AND OTHERS.

WE have pleasure in calling your attention to our REGISTERED CUPBOARD TURN, the novelty and simplicity thereof being universally acknowledged. It possesses the important advantages of a stop rose, a fast tongue, and regulating itself to any thickness of door: the cost being scarcely, if any more, than the ordinary turn, added to its utility, it will, we flatter ourselves, supersede any yet introduced.

WEBB and GREENWAY, Manufacturers and Wholesale Ironmongers, York-street, Birmingham.

By Her Majesty's Royal Letters Patent.

PITT'S PATENT SELF-ADJUSTING DOOR KNOBS AND LOOSE SPINDLES.



HART and SONS beg to invite the attention of architects, builders, and others, to their Door Furniture, mounted for PITT'S PATENTED SPINDLES. The knobs are stronger, more durable, and more elegant in form, than those in ordinary use, as the spindles, being loose, do not require the objectionable side screw. They are more readily fixed, are suitable for every description of lock now in use, and, as they adjust themselves to doors of different thicknesses, without alteration, are particularly adapted for the country or for exportation. They are made (to suit every style of decoration) in China, crystal, amber, and opal glass, buffalo, horn, ivory, ebony, brass, &c., en suite with finger-plates, bell-pulls, levers, &c.—May be obtained of all Ironmongers; or of the proprietors and sole manufacturers, HART and SONS, Wholesale Ironmongers, 53, 54, and 55, Wych-street, Strand, London.

N.B. PITT'S PATENTED SPINDLE, being the only one that does not require a screw in the side of the knob or mounting, the use of any lock furniture without such side screws would be an infringement of the patent.